

ART. V.—*A Contribution to our Knowledge of the Spiders
of Victoria; including some New Species and
Genera.*

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(Plates XIII. to XVII.)

[Read 19th April, 1900].

The spiders from my own collection here dealt with have been taken almost wholly about the neighbourhood of Macedon, and may therefore be considered as fairly representative of the central portion of the Dividing Range of the colony of Victoria.

The Australian spiders described by L. Koch and E. von Keyserling, our chief workers in the past, were mostly collected by the agents of Messrs. Godeffroy Brothers of Hamburg, from about their trading stations for produce in Queensland, New South Wales, and the Pacific islands; they also include the work done by Mr. Bradley in New South Wales, Mr. Urquhart in New Zealand, and by Messrs. Thorell and O. P. Cambridge, from desultory specimens, so that the southern portion of the continent has remained more or less unworked.

The Godeffroy collection, unhappily, was broken up some years ago, and no reliance can now be placed on the specimens at times sold by dealers as L. Koch's types, but the National Museum of Victoria has a good representative set of named specimens, purchased many years ago therefrom, reputed to be types. Von Keyserling's collection is in the British Museum, and his types are available for comparison, but the Australian ones are comparatively few in number, so that in determining species written descriptions have to be followed in the large majority of instances, leaving an unsatisfactory margin of liability to error even where, as in this case, they are so minutely and conscientiously detailed.

The illustrations are fortunately very voluminous, and where I have been able to compare them with the originals, I have been imbued with great respect for the accuracy of the work.

In descriptions of new species I have endeavoured to follow as closely as possible Herr Koch's methods, and only venture to hope that later students may find my own as lucid and reliable as I have found his.

In spite of the fact that we have many forms extremely widely spread over Australasia, there are undoubtedly others whose habitat is comparatively local, and different localities seem to develop characteristics which are quite distinguishable.

In these southern coastal districts, we miss the larger members of the various families, as well as the more exaggerated variations from the simple types, which are so numerous in the warmer central and northern portions of the continent.

As examples of this I would instance the larger Nephilae Avicularidae and Philodromidae, as well as the more pronounced forms of Gasteracantha found in the north, of which our southern representatives are smaller and more normal in form.

This suggests the inference that congenial surroundings of life and abundance of food have had a clear influence on the specialisation of members of the various families in the same manner as animals develop size and abnormal shapes under the more easy conditions of domestication.

One special feature of the spider fauna of Australasia seems to be that, while we find on the main continent species located also in New Zealand, Fiji, and other Pacific islands at great distances from our coasts, instances of intercommunity between Australia and the Northern islands, or Asia, are of much more rare occurrence, although the links of land connection are broken by comparatively narrow straits. I except, however, New Guinea and North Queensland, between which, as might be expected, there is considerable interchange, though to what extent we shall not know definitely until more New Guinea material has been worked out.

As far as I can judge at present, Southern Victorian species spread along the coast as far west as King George's Sound in greater abundance than only as far north as across the Murray into Riverina. On the other hand a good many of our species run up the coast-line to Bowen and Townsville, in Queensland.

I say so far as I can judge, because our inland stations require more careful searching than they have yet had before anything like accurate areas for species can be assigned.

Among the sedentary spiders, *Latrodectus scelio*, Thor., which, as the Katipo, has gained a reputation in New Zealand, is more widely spread probably than any other. I have it from all parts of Victoria, New South Wales, Southern Queensland, Central Australia, Adelaide and Albany. *Araneus verrucosus*, Walck.; is common in New Zealand and Victoria. *Gasteracantha minax*, Thor., is abundant from Sydney downwards through Victoria, South Australia, and west to Albany, *Arachnura higginsii* ranges from Darling Downs, Queensland, through Victoria to Albany, West Australia.

Some of the Laterigrade spiders, *Voconia insignis*, Thor.; *V. dolosa*, L. Koch; *V. immanis*, L. Koch; and *Delena cancerides*, Walck, are, as might be expected from their powers of locomotion, found in all parts of the continent hitherto searched, but specimens are a good deal larger in the north than in the south.

In my present paper, confined to one district, I have recorded 64 genera and 139 species, in which 6 genera and 29 species are new.

I am not, however, publishing descriptions of any new Saltigrade spiders, as we are awaiting fresh classifications of this group, the Attidae, from M. Eugene Simon, in France, and Dr. and Mrs. Peckham, in America, who have been engaged on them for some time past. The present division of this important group is admittedly imperfect, and von Keyserling's classification of the Australian genera is only tentative.

In spite of the very large number of specimens which M. Eugene Simon must have examined for the arrangement of his genera of the Spiders of the world, a great work never before attempted, it would seem as if he had not had the opportunity of comparing many of our Australian forms. In fairly numerous instances specimens in this collection do not fall in with his synopses. I have noted some of the cases to which I refer, and will endeavour later on to supply a fuller list.

I cannot too gratefully express my thanks to Mr. R. I. Pocock, of the Natural History Museum, South Kensington, and Professor Baldwin Spencer, Director of the National Museum of Victoria, for their ever ready advice and assistance, and the opportunities afforded me by each of them in comparing the types in the collections under their charge.

LIST OF THE SPIDERS OF THE MACEDON DISTRICT.

Order **Araneae.**

I.—Sub-order ARANEAE THERAPHOSAE.

Family AVICULARIDAE.

Sub-family Diplurinae.

Group Diplureae.

Genus *Brachythele*, Auss. (= *Aname*, L. Koch).

Species *pallida*, L.K.

Genus *Hapalothele*, Lenz. (= *Ixalus*, L. Koch).

Species *varius*, L.K.

II.—Sub-order ARANEAE VERAЕ.

Section I.—Cribellatae.

Family ULOBORIDAE.

Sub-family Uloborinae.

Genus *uloborus*, Latreille.

Species *tenellus* (?), L. Koch.

Family DICTYNIDAE.

Genus *amaurobius*, C. Koch.

Species *senilis*, L. Koch.

„ *chalybeius*, L. Koch.

„ *robustus*, L. Koch.

„ *candidus*, L. Koch.

„ *segestrinus*, L. Koch.

„ *pilosus*, nov. sp.

Genus *Badumna*, Thor.

Species *inornata*, L. Koch.

Genus *Hylobius*, nov. gen.

Species *divergens*, nov. sp.

„ *punctatus*, nov. sp.

Section II.—Ecribellatae.

Family OONOPIDAE.

Group Oonopidae molles.

Genus *Macedonia*, nov. gen.

Species *burchelli*, nov. sp.

Genus *Gippsicola*, nov. gen.

Species *raleighi*, nov. sp.

Family Drassidae

Sub-family Hemicloeiinae.

Genus Hemicloea, Thorell.

Species flavitarsis, L. Koch.

„ major, L. Koch.

„ rogenhoferi, L. Koch.

Sub-family Drassodinae.

Group Drassodeae.

Genus Drassodes, Westring.

Species Silaceus, L. Koch.

„ Ochropus, L. Koch.

Genus Drassus, Walck.

Species debilis, nov. sp.

Group Lamponeae.

Genus Lampona, Thorell.

Species fasciata, L. Koch.

„ sordida, L. Koch.

„ cylindrata, L. Koch.

„ obscaena, L. Koch.

„ murina, L. Koch.

Group Gnaphoseae.

Genus gnaphosoides, nov. gen.

Species signatus, nov. sp.

Family ZODARIIDAE.

Sub-family Zodariinae.

Group Storeneae.

Genus Storenosoma, nov. gen.

Species lycosoides, nov. sp.

Genus Storena.

Species striatipes, L. Koch.

„ formosa, Thorell.

„ spirafer, L. Koch.

„ macedonensis, nov. sp.

Family PHOLCIDAE.

Sub-family Pholcinae.

Group Pholceae.

Genus Pholcus, Walck.

Species litoralis (?), L. Koch.

Family THERIDIIDAE.

Group Theridieae.

Genus Theridion.

Species semiflavum, L. Koch.

„ mundulum, L. Koch.

„ decoratum, L. Koch.

„ crinitum, L. Koch.

„ gigantipes, Keys.

Genus Centropelma, L. Koch.

Species bicolor, L. Koch.

Group Dipoeneae.

Genus Latrodectus, Walck.

Species scelio, Thor.

Family ARGIOPIDAE.

Sub-family Tetragnathinae.

Group Tetragnatheae.

Genus Tetragnatha, Latr.

Species cylindrica (?), Walck.

„ panopea (?), L. Koch.

„ mandibulata, Walck.

„ valida, Keys.

Group Meteae.

Genus Meta, C. Koch.

Species trivittata, Keys.

„ Graeffii, Keys.

Sub-family Nephilinae.

Group Nephileae.

Genus Nephila, Leach.

Species venosa, L. Koch.

Sub-family Argiopinae.

Group Argiopeae.

Genus Argiope, Audouin.

Species plana, L. Koch.

„ picta, L. Koch.

„ regalis, L. Koch.

„ syrmatica, L. Koch.

Group Cyrtophoreae.

Genus Cyrtophora, E. Sim.

Species parnasia, L. Koch.

Group Araneae.

Genus *Araneus*, Clerck.

- Species *biapicatus*, L. Koch.
 „ *thyridotus*, Thorell.
 „ *productus*, L. Koch.
 „ *transmarinus*, Keys.
 „ *sydneyicus*, Keys.
 „ *verrucosus*, Walck.
 „ *fuliginatus*, L. Koch.
 „ *decolor*, L. Koch.
 „ *bradleyi*, Keys.
 „ *phthisicus* (?), L. Koch.
 „ *psittacinus*, L. Koch.
 „ *rarus*, Keys.
 „ *triangulus*, Keys.
 „ *memorii*, nov. sp.
 „ *scutigerens*, nov. sp.

Group Gasteracanthae.

Genus *Gasteracantha*, Sundv.

- Species *minax*, Thor.
 „ var. *astrigera*, L. Koch.
 „ „ *lugubris*, L. Koch.

Group Cyrtarachneae.

Genus *Cyrtarachne*, Thor.

- Species *latifrons*, nov. sp.
 „ *latifrons*, var. *atuberculata*.

Group Celaenieae.

Genus *Celaenia*, Thorell.

- Species *excavata*, L. Koch.
 „ *dubia* (?), Cambr.

Group Arcyeae.

Genus *Arcys*, Walck.

- Species *clavatus*, L. Koch.

Genus *Archemorus*.

- Species *simsoni* (?), E. Sim.

Group Dolophoneae.

Genus *Dolophones*, Walck. (= *Tholia*, L. Koch).

- Species *testudineus*, L. Koch.
 „ *pilosus*, Keys,

Species *mammeatus*, Keys.

„ *maximus*, nov. sp.

Family THOMISIDAE.

Sub-family Misumeninae.

Group Cymbacheae.

Genus *Cymbacha*, L. Koch.

Species *similis*, L. Koch.

Group Coriarachneae.

Genus *Tharpyna*, L. Koch.

Species *diademata*, L. Koch.

Group Misumeneae.

Genus *Misumena*, Latr.

Species *lactea*, L. Koch.

Group Dioeae.

Genus *Dioea*, Thor.

Species *daemeli*, L. Koch.

Genus *Xysticus*, C. Koch.

Species *cruentatus*, L. Koch.

„ *autumnalis*, L. Koch.

Sub-family Stephanopsinae.

Group Stephanopseae.

Genus *Stephanopsis*, Cambr.

Species *Cambridgei*, Thor.

„ *trapezia*, L. Koch.

„ *armata*, L. Koch.

Family CLUBIONIDAE.

Sub-family Sparassinae.

Group Sparasseae.

Genus *Delena*, Walckenaer.

Species *cancerides*, Walck.

Genus *Holconia*, Thor. (= *Voconia*, Thor.).

Species *insignis*, Thor.

„ *immanis*, L. Koch.

„ *dolosa*, L. Koch.

Genus *Isopoda*, L. Koch.

Species *flavida* (?), L. Koch.

„ *conspersa*, L. Koch.

„ *aurea* (?), L. Koch.

Group Heteropodeae.

Genus Heteropoda, Latr.

Species diana, L. Koch.

„ macilenta, L. Koch.

Sub-family Clubioninae.

Group Clubioneae.

Genus Clubiona, Latr.

Species robusta, L. Koch.

„ notabilis, L. Koch.

Sub-family Liocraninae.

Group Miturgeae.

Genus Miturga, Thorell.

Species lineata, Thor.

„ gilva, L. Koch.

„ maculata, nov. sp.

Genus Syspira, E. Simon.

Species rubicunda, nov. sp.

Genus Argoctenus, L. Koch.

Species pictus, L. Koch.

„ pectinatus, nov. sp.

Sub-family Corinninae.

Group Corinneae.

Genus Medmassa, E. Sim.

Species pallipes, L. Koch.

„ albopunctata, Hogg.

„ bicolor, nov. sp.

„ fusca, nov. sp.

Family PISAURIDAE.

Sub-family Dolomedaeae.

Genus Dolomedes, Latr.

Species australianus, L. Koch.

„ instabilis, L. Koch.

Family LYCOSIDAE.

Sub-family Cyclocteneae.

Genus Cycloctenus, L. Koch.

Species flaviceps, L. K.

Sub-family Lycoseae.

Genus Lycosa, Latreille.

Species ornatula, L. Koch.

- Species *ramosa* (?), L. Koch (young).
„ *expolita*, L. Koch.
„ *berenice* (?), L. Koch.
„ *inornata* (?), L. Koch.
„ *laeta*, L. Koch.
„ *leucophaea* (?), L. Koch (young).
„ *godeffroyi*, L. Koch.
„ *alboguttulata*, L. Koch.

Genus *Venator*, nov. gen.

- Species *spenceri*, nov. sp.
„ *fuscus*, nov. sp.
„ *marginatus*, nov. sp.

Family ATTIDAE.

Genus *Leptorchestes*, Thor.

- Species *cognatus*, L. Koch.
„ nov. sp.

Genus *Scirtetes*, L. Koch.

Species nov. sp.

Genus *Marptusa*, Thor.

- Species *leucocomis*, L. Koch.
„ *jovialis*, L. Koch.
„ *melancholica*, L. Koch.

Genus *Astia*, L. Koch.

Species *respersa*, L. Koch.

Genus *Opisthonus*, L. Koch.

Species *magnidens*, L. Koch.

Genus *Ergane*, L. Koch.

Species *dialeuca*, L. Koch.

Genus *Prostheclina*, Keys.

Species *pallida*, Keys.

Genus *Cytaea*, Keys.

Species nov. sp.

Genus *Habrocestum*, E. Simon.

Species *opalescens*, nov. sp.

Genus *Sinnamora*, Keys.

Species *semirasa*, Keys.

„ nov. sp.

Genus *Hadrosoma*, Keys.

Species nov. sp.

Female					
	Ceph.	-	8 mm. long.	-	6 mm. broad.
	Abd.	-	8 „ „	-	5 „ „
	Coxa.		Tr. & Fem.		Pat. & Tib.
					Met. & Tars.
Legs 1	-	4 mm.	-	6 mm.	- 6½ mm. = 22 mm.
2	-	3½ „	-	5½ „	- 5½ „ = 20¼ „
3	-	3 „	-	5 „	- 5½ „ = 18½ „
4	-	3½ „	-	6 „	- 6½ „ = 23 „
					Tarsus.
Palpi	-	3½ „	-	4½ „	- 4½ „ = 15½ „
Male					
	Ceph.	-	4½ mm. long.	-	3 mm. broad.
	Abd.	-	6 „ „	-	4 „ „
	Coxa.		Tr. & Fem.		Pat. & Tib.
					Met. & Tars.
Legs 1	-	1½ mm.	-	3 mm.	- 3 mm. = 10½ mm.
2	-	1¼ „	-	3 „	- 2½ „ = 9¾ „
3	-	1¼ „	-	2¾ „	- 2¾ „ = 9¼ „
4	-	1½ „	-	4 „	- 3½ „ = 13 „
			Palpi	-	8 mm.

I have taken adult spiders, notably a *Latrodectus scelio*, and kept them alive in captivity for periods of up to over two years, during which time they certainly increased in size.

I think it may reasonably be concluded that some of the larger species live for three or possibly four years, which might account for the difference in size.

I have measured adult specimens of *Miturga lineata* which varied nearly as much as the above.

L. Koch describes two black species of *Gasteracantha*, *G. astrigera* and *G. lugubris*, which differ from *G. minax*, Thor., firstly in the absence of the characteristic white or yellow markings, in one case from the back only and in the other both upper and under sides, and, secondly, in the size and shape of the spines. On looking over a large number of specimens of *G. minax*, a numerous and widely spread species, it is quite easy to form a series with spines varying from the most formidable dimensions down to the finer and smaller as described for the black, which are scarcer, though still widely spread. I have no males of the latter, but in the females the genital structure is the same, and I have, therefore, treated them as varieties only of *G. minax*, with the melanism more or less complete.

Amaurobius pilosus, nov. sp. (Pl. XIII., Fig. 1).

Cephalothorax, black-brown, with grey hairs. Mandibles, black-brown in front, with brown hair, underneath paler yellow-brown and smooth. Fangs, the basal half bright yellow-brown, remainder paler. Lip and maxillae, yellowish grey, paler at edges, with brown upstanding hair. Sternum, black-brown, yellowish grey hair. Legs and palpi, darkish brown on femoral joint, paling to yellowish brown on others, white to greyish yellow hair. Patella, tibia and metatarsus ringed with dark grey. Abdomen, black-brown, with long grey hair above, no pattern, underneath a median field of dark brown hair edged with white and two parallel longitudinal lines of white hair reaching the whole length near median line, spinnerets and cribellum yellowish grey.

The *Cephalothorax* is broad and convex on cephalic part; equally high, rather long, and rounded at sides on thoracic part; shorter than patella cum tibia IV.; rather steeply sloping at sides and rear; a shallow median furrow at top of rear slope.

The front row of *Eyes* is straight, middle eyes round, side eyes oval, their long diameter the same as the middle and that distance away from them; the same also is the breadth of the clypeus. The rear row is procurved, all round, diameter equals two-thirds of front middle, two and a half diameters apart. Side eyes on a protuberance with front side, their diameter apart.

The *Mandibles* are knee-formed at base, conical, longer than patella I., thicker than femur I., and thickly covered with hair. The fangs are short, thick at base, and well curved. On the inner edge of false sheath, which is very sloping, are two small teeth, on outer edge four, of which the third is the largest.

The *Maxillae* are straight at sides, upright, and slightly rounded on front edge. The *Lip* is more than half the length of these, rounded at sides, straight in front and very slightly notched. There are fine upstanding hairs on both.

The *Sternum* is pear shaped, raised at edges, but flat on top. It ends in a long fine point, which reaches between the separated rear coxae. It is thickly covered with long hair, curling towards the centre, and this is intermixed with short, flat, white hairs.

The *Abdomen* is oval, straight in front, and rounded at rear, thickly covered with close hair; spinnerets two jointed, conical. The superior pair is longest, but much narrower than inferior. The intermediate quite small.

The *Cribellum* is smooth on the front face and not divided in the male.

The femoral joint of the *Palpi* is well curved. The tarsal joint is not much differentiated, but is furnished with a fine hooked stigma. Two points project from side of tibial joint, the upper one the largest.

The *Legs* are rather long and fine. The rear coxae are separated by a distance equal to half their breadth. They are covered with furry hair intermingled with flat white hairs the same as on the sternum. All the legs are furnished with short, fine spines.

Ceph. - - $3\frac{1}{2}$ mm. long. - 3 mm. broad.
Abd. - - 4 „ „ - 3 „ „

		Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.	
Legs	1	-	1 mm.	-	4 mm.	-	5 mm.	-	5 mm. = 15 mm.
	2	-	$\frac{3}{4}$ „	-	$3\frac{3}{4}$ „	-	4 „	-	4 „ = $12\frac{1}{2}$ „
	3	-	$\frac{3}{4}$ „	-	3 „	-	$3\frac{1}{2}$ „	-	$3\frac{1}{2}$ „ = $10\frac{3}{4}$ „
	4	-	$\frac{3}{4}$ „	-	$3\frac{3}{4}$ „	-	4 „	-	4 „ = $12\frac{1}{2}$ „

or, 1, 2, 4, 3.

One male only, from Macedon.

In his synopsis of genera, M. Simon (Nat. Hist. des Ar., vol. I., p. 236) makes *Amaurobius* come into a division in which the rear coxae are contiguous. This, however, is no part of C. Koch's definition of the genus. The cribellum also should be double. In several species the cribellum is double in the females and single in the males. This species, therefore, remains in the genus *Amaurobius*, with which its eyes and clypeus agree, and not my genus *Hylobius*.

Family DICTYNIDAE.

See M. E. Simon's Hist. Nat. des Araignées, vol. I., p. 236.

SYNOPSIS OF GENERA.

- 5.—Lip evidently longer than broad - - -
- 5A.—Front middle eyes farther from the side eyes than from one another.
Clypeus about as broad as front middle eyes - - - - - Amaurobius
- 5B.—Front middle eyes farther from one another than from the side eyes.
Clypeus much wider than front middle eyes - - - - - Hylobius.
- Lip not longer than broad, front row of eyes equidistant - - - - - Badumna.

HYLOBIUS, nov. gen.

Differs from Amaurobius in having the front middle eyes nearer to the side eyes than to one another, the clypeus much broader than the front middle eyes, and the area of the four middle eyes broadest in front.

Type *Hylobius divergens*, n. sp.

In my specimens of *Amaurobius segestrinus*, L. Koch, the cribellum is double in the females and single in the males. The same is the case in *Hylobius punctatus*, nov. sp. These are the only species of the family in which I have both males and females.

HYLOBIUS.

- Sternum produced between rear coxae - - - *divergens*.
 Rear coxae contiguous - - - - - *punctatus*.

Hylobius divergens, nov. sp. (Pl. XIII., Fig. 2).

Cephalothorax, yellowish brown, inclining to black-brown on fore part. Mandibles, black-brown with lighter brown hairs, points of fangs reddish. Maxillae, lip and sternum brown with paler median streak on latter, hair dark brown. Abdomen, dark grey with two longitudinal, narrow, paler stripes on under side, hairs dark yellowish grey. Spinnerets and cribellum yellowish grey. Epigyne, brown. Legs and Palpi, yellow-brown with greyish hairs and brown spines.

Cephalothorax slightly longer than patella cum tibia of 4th pair of legs 2 mm. longer than broad, cephalic part straight at

sides, raised up, convex, and rather narrower than the rounded sides of the breast part. Small longitudinal fovea at commencement of rear slope.

The front row of *Eyes* is recurved, the two middle being round, one and a half diameters apart, and side eyes one diameter distant, oval, rear row procurved, middle eyes smaller than front middle, one and a half diameters apart, two and a half diameters from the side, which are half the long diameter of front side, and the same distance away on a common protuberance.

The *Mandibles*, stout and broad, are longer than the front patella and thicker than the front femur, knee-formed, with rather thick, down-lying hair. Fangs, strong and curved, with two teeth on inner falx edge, the lower the larger, a thick fringe and three teeth on the outer edge.

Maxillae arched, rather inclined over lip, wider in front than at base, rounded on outer edge. *Lip* more than half the length of the maxillae, straight in front without indentation, but springing from narrower neck at base.

The *Sternum* is a broad heart-shape, pointed at rear, and descending one-third of distance between rear coxae, which are separated by a distance equal to half their breadth.

The *Abdomen* is ovate, narrowest in front, rounded at sides, and widest about one-third of the length from the rear end. It is thickly covered with fine, down-lying hairs.

The cribellum in the female is faintly divided by a very thin line.

The *Palpi* are curved at the femoral joint, but short, straight and cylindrical in the other joints.

The *Legs* are stout, but tapering to the tarsal joints, which are fairly fine. The femur arched on upper side; short spines on all legs.

		Ceph.	-	-	$6\frac{1}{2}$ mm.	long,	-	$4\frac{1}{2}$ mm.	broad.	
		Abd.	-	-	$8\frac{1}{2}$ "	"	-	$5\frac{1}{2}$ "	"	"
		Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.		
Legs	1	-	$2\frac{1}{4}$ mm.	-	6 mm.	-	6 mm.	-	$6\frac{1}{4}$ mm.	= $20\frac{1}{2}$ mm.
	2	-	2 "	-	5 "	-	$5\frac{1}{4}$ "	-	$5\frac{1}{4}$ "	= $17\frac{1}{2}$ "
	3	-	$1\frac{3}{4}$ "	-	5 "	-	$4\frac{3}{4}$ "	-	$4\frac{3}{4}$ "	= $16\frac{1}{4}$ "
	4	-	2 "	-	$5\frac{1}{2}$ "	-	6 "	-	$5\frac{3}{4}$ "	= $19\frac{1}{4}$ "
or, 1, 4, 2, 3.										

Hylobius punctatus, nov. sp. (Pl. XIII., Fig. 3).

The Cephalothorax is a dark reddish brown, lighter towards the side slopes of the cephalic part, but darker along four radiating sulci on each side of the thoracic part. Mandibles, dark red-brown, thickly covered with dark grey hair. Lip, maxillae, sternum and coxae, dark yellowish brown, with fine brown hairs. Legs, yellow-brown with similar hairs and dark brown spines. The abdomen is dark grey, mottled with irregular lighter spots of short fine hair, upper and under sides alike.

The *Cephalothorax* is longer than patella cum tibia IV., two mm. longer than broad; cephalic part arched and prominent; thoracic part rounded at sides with three deep lateral indentations and a deep longitudinal fovea reaching to rear slope, which is rather steep.

The front row of *Eyes* is straight, the middle eyes round, a diameter apart, the side eyes oval, their long diameter being greater than that of the middle, and about half its length away. The rear row is slightly procurved; middle rather smaller than front middle one and a half diameters apart and two diameters from the side ones, which are oval, smaller than the front side, and their length away from the latter.

The *Mandibles* are knee-formed at base, conical, with short, well-curved fangs; two teeth on the inner false edge, the lower being larger of the two; a thick, brown fringe on outer side.

Maxillae arched, smooth, upright and rounded on outer edge.

Lip more than half the length of the latter, longer than broad, rounded at the sides, and straight in front. It springs from a neck at the base.

The *Sternum* is a broad, oval, but rather pointed at posterior end, furnished with short, fine, upstanding hair. It is not produced between the rear coxae, which are contiguous.

The *Abdomen* is oval, rather straighter in front, and clothed with thin, upright hair.

The *Cribellum* in the female is very white and distinctly divided across the middle. The epigyne has two oval hollows above a transverse fold.

The femoral joint of the *Palpi* are curved inwards, and the digital joint of the female's is dilated and pointed at the end.

The *Legs* are stout and smooth, with spines on all joints. The femur of the front pair is curved inwards.

The male, which in other respects closely resembles the female, has the cribellum undivided.

Ceph. - - 6 mm. long. - 4 mm. broad.

Abd. - - $6\frac{1}{2}$ „ „ - $4\frac{1}{2}$ „ „

	Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.	
Legs 1 -	2 mm.	-	$4\frac{3}{4}$ mm.	-	$5\frac{3}{4}$ mm.	-	5 mm.	= $17\frac{1}{2}$ mm.
2 -	$1\frac{3}{4}$ „	-	4 „	-	$4\frac{1}{2}$ „	-	$4\frac{1}{4}$ „	= $14\frac{1}{2}$ „
3 -	$1\frac{3}{4}$ „	-	4 „	-	4 „	-	4 „	= $13\frac{1}{4}$ „
4 -	$1\frac{3}{4}$ „	-	$4\frac{1}{2}$ „	-	5 „	-	$4\frac{1}{2}$ „	= $15\frac{3}{4}$ „

or, 1, 4, 2, 3.

See M. Simon's Hist. Nat. des Araignées, vol. I., p. 293.

Family OONOPIDAE. Group OONOPIDAE MOLLES.

SYNOPSIS OF GENERA.

- 1.—Eye space transverse. Lip much longer than broad - - - - - 2.
- 2.—Legs smooth and rather long. Femoral joint of rear pair of legs much stouter than in other pairs - - - - - 2A.
- Legs bespined; all femoral joints about alike - - - - - 2B.
- 2A.—Middle eyes forming a straight or slightly procurved line with the front side eyes - - - - - Orchestina.
- 2B.—Middle eyes about the same as in Orchestina - - - - - Gippsicola.
- Middle eyes occupying the middle space - - - - - Salsula.
- Middle eyes forming a straight or slightly procurved line with the rear side eyes - - - - - Macedonia.

GIPPSICOLA, nov. gen.

The Cephalothorax rather long, convex, broad and obtuse in front. Eye space transverse, narrower by one-half than the

frontal breadth. Four front eyes nearly in a straight line, the middle largest, close to one another, but slightly separated from the side eyes. The two rear eyes set obliquely, their diameter distant from the front side eyes, and farther still from the middle eyes. Clypeus narrow, not exceeding in depth the diameter of the side eyes. Lip longer than broad, with straight sides. Maxillae long and upright. Sternum convex, shield shaped, longer than wide, tapering at the rear end. The coxae of the fourth pair of legs are rather widely separated from those of the third pair, and equally so from one another.

Legs bespined, not differing much in length in proportion 1, 2, 4, 3, or 1, 4, 2, 3; femoral joint of rear pair dilated.

Type *G. raleighi*, nov. sp.

MACEDONIA, nov. gen.

Macedonia differs from *Gippsicola* in having the middle pair of eyes in a straight or slightly procurved line with the rear side eyes. The side eyes nearly touching. The clypeus wider than the diameter of the largest eyes. Lip rounded at the sides and the maxillae slightly inclined over the lip.

Type *M. burchelli*, nov. sp.

These two species are peculiarly alike in general shape and coloration, and, judging from his description (*Trans. N.Z. Inst.*, vol. 23, p. 128) also resemble in general appearance Mr. Urquhart's *Oonops septemcincta*, which I have not seen. In falx teeth, eyes, and tarsal claws they differ at least as much as do *Salsula* and *Orchestina*, but again in shape of lip, maxillae, sternum, cephalothorax, abdomen, spinnerets, etc., so far coincide as to suggest that they and possibly the N.Z. species should be included in one genus. The latter with its contiguous side eyes, separated middle eyes, and broad clypeus, hardly agrees closely with *Oonops*, *Templ.* The difference in the mode of insertion of the tarsal claws would be, however, rather remarkable for a single genus.

Macedonia burchelli, nov. sp. (Pl. XIII., Fig. 4).

Cephalothorax, dark yellow-brown. Mandibles somewhat darker still. Sternum, lip and maxillae, paler, orange. Legs and palpi, a golden yellow. Abdomen, above black, with 8 pale

yellow transverse stripes, all divided across the middle by a longitudinal, black stripe. They are largest in front, gradually diminishing and nearing one another as they reach the rear point; the underside is all yellow.

The *Cephalothorax* is considerably longer than the *Patella* cum *tibia* of any pair of legs. It is convex, slightly rounded, at sides and rear narrowest, but still broad, in front where it is straight truncate.

The *Eyes*, six in number, occupy a transverse area not much more than one-third of the frontal breadth. The middle pair are largest, of a broad, oval shape, inclined, and touching one another near their upper end. Their lower edges are in a line with those of the smaller rear side eyes, from which they are distant by their long diameter's length. The front and rear side eyes are alike in size and, touching one another, are placed obliquely on a shiny, black prominence, the front pair being nearer together than the rear pair.

The *Clypeus* is fairly broad, exceeding the long diameter of the middle eyes.

The *Mandibles* are conical, rather long, much exceeding in length the front *patellae*. On each margin of the *falx* sheath is one small tooth situated near the insertion of the fang.

The *Lip* is nearly twice as long as broad. It is rounded at the base, and at the lower half of the sides, whence it rather curves inwards to the anterior end, which is narrow, truncate, and notched in the middle. The middle area is convex, with a flat margin.

The *Maxillae*, which begin below the lip, are rounded at the base, broadest a little above, curve deeply inwards above the point of insertion of the palpi, whence they curve outwards again and end in a somewhat narrow point. They are slightly inclined over the lip.

The *Sternum* is a long, shield shape, nearly twice as long as the broadest part, one-third from the anterior end, narrowed and truncate in front, rather rounded at rear. It rises convexly from a flat margin; is smooth, with a few, upstanding hairs.

The *Legs* are only moderately stout. The femoral joints of all legs being slightly dilated in the middle and markedly curved, the first, second and third pairs towards the body forward, the

fourth pair towards the body backwards. Tarsal joints very short. The fourth pair of coxae are separated from the third pair by a space one-third their width and by half their width from one another. There are spines on all tibial and metatarsal joints, with two small ones on front inner edge of femur I. The claws spring from a hollow cup at end of tarsal joint.

The *Abdomen* is long, ovate, truncate, and widest at front end, rather pointed at rear. It is thinly clothed with upstanding hairs.

Two pairs of stigmata are distinctly visible, the front pair in line with the genital aperture and the posterior pair rather closer together just behind them.

The inferior spinnerets are conical, with a short conical second joint.

The superior pair are widely separated, much smaller in diameter, cylindrical, with small hemispherical second joint.

Ceph. - -		$4\frac{1}{4}$ mm. long.		-	$2\frac{3}{4}$ mm. broad.	
Abd. - -		5 „ „		-	3 „ „	
		Coxa.	Tr. & Fem.	Pat. & Tib.	Met. & Tars.	
Legs 1	-	$1\frac{1}{2}$ mm.	-	$3\frac{1}{2}$ mm.	-	$3\frac{1}{2}$ mm. = 12 mm.
2	-	$1\frac{1}{4}$ „	-	3 „	-	$3\frac{1}{4}$ „ = $10\frac{1}{2}$ „
3	-	1 „	-	$2\frac{1}{2}$ „	-	$2\frac{3}{4}$ „ = $8\frac{3}{4}$ „
4	-	$1\frac{1}{4}$ „	-	$3\frac{1}{2}$ „	-	3 „ = $10\frac{3}{4}$ „
or, 1, $\overline{4, 2, 3}$.						

Gippsicola raleighi. (Pl. XIII., Fig. 5).

Cephalothorax, a dusky yellow, with fine, pale yellow hairs. Mandibles, lip, maxillae and sternum, brighter yellow, hairs inclining to brown. Legs and palpi, same as cephalothorax, the hair on femora being dark brown. Abdomen, above black, with transverse yellowish stripes springing from a longitudinal median stripe of the same colour. It is covered with long, upstanding black and yellow hair. Below, yellow mottled with black. Spinnerets, yellow.

The *Cephalothorax* is long, obtuse in front, slightly rounded at the sides, and indented at rear.

The two middle *Eyes* are large and oval. They stand upright close together on their ends, their bottom edges in a line with the

front side pair. The latter are round, their diameter smaller than the short diameter of the middle eyes, half their diameter away. The rear side eyes are round, similar in size, a diameter distant from the front side; being placed obliquely, they are one and a half diameters from the middle eyes, and with the front stand on a black, shiny protuberance.

The *Mandibles* are long and straight, slightly knee-formed at the base, and more than twice the length of the front patellar joints. There are a few upstanding fine bristly hairs on the inner front edges; fangs a reddish yellow. On the inner margin of falx sheath are two large teeth, on the outer edge three teeth, of which the middle one is largest.

The *Lip* is nearly twice as long as broad, straight at the sides, truncate at the front edge, with a notch in middle, and a hollowed bordering down each side. It is two-thirds the length of the *Maxillae*, which are upright, parallel, cut off rather slopingly on inner side, rounded exteriorly, and narrowing towards the base.

The *Sternum* is a long shield shape, convex in centre, truncate in front, rather pointed at rear, but not reaching between the rear coxae; a moderate covering of fine, upstanding hair.

The *Palpi* have the femoral joint curved inwards, and rather broadened anteriorly. Tarsal joint long, tapering from a broad base.

The *Legs* are moderately long and fine, the femoral joint curved and thickened in the middle, on all pairs, numerous brown spines on underside of tibia and metatarsus of all legs. The tarsal joints are very fine, less than half the length of the metatarsal; about five pectinations on upper tarsal claws, which spring from a projection at the end of the tarsus, like a small onychium; no claw tufts. The fourth pair of coxae are as far apart from one another as from the third pair, about one-third their breadth.

Abdomen.—Long, ovate, truncate anteriorly and smallest at rear. The second pair of tracheal openings are plainly visible a little below the genital aperture near the median line.

Spinnerets, six. The inferior pair are conical and are raised from a common membranous base. The superior pair are cylindrical, smaller, and stand wider apart.

The *Clypeus* is narrow, barely the diameter of one of the side eyes.

		Ceph.	-	-	3 mm.	long.	-	$1\frac{3}{4}$ mm.	broad.
		Abd.	-	-	4	„ „	-	2	„ „
		Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.	
Legs	1	-	1 mm.	-	$2\frac{1}{2}$ mm.	-	3 mm.	-	$2\frac{1}{2}$ mm. = 9 mm.
	2	-	1 „	-	$2\frac{1}{2}$ „	-	$2\frac{3}{4}$ „	-	$2\frac{1}{4}$ „ = $8\frac{1}{2}$ „
	3	-	1 „	-	2 „	-	$2\frac{1}{2}$ „	-	2 „ = $7\frac{1}{2}$ „
	4	-	1 „	-	$2\frac{1}{4}$ „	-	$2\frac{3}{4}$ „	-	$2\frac{1}{4}$ „ = $8\frac{1}{4}$ „
<i>or</i> , 1, $2\frac{1}{4}$, 3.									

I have named this after Mr. H. J. Raleigh, who kindly forwarded it to me from Gembrook, Gippsland (Eastern Dividing Range of Victoria).

***Drassus debilis*, nov. sp.** (Plate XIV., Fig. 1).

Cephalothorax greyish yellow, with rather greyer hairs. Mandibles yellow, with bright reddish brown fangs. Lip maxillae and sternum yellow, with pale yellow hairs. Legs and palpi bright yellow, with pale yellow hair. Abdomen silver-grey above and greyish yellow, with silver-grey hairs, on under side.

The *Cephalothorax* is oval, slightly narrowed in front, shorter than patella cum tibia IV., and $\frac{1}{2}$ mm. longer than broad, rather low, and of even height the whole length. Lightly clothed with short, close-lying feathered hairs and a few upstanding bristles. A median sulcus indistinct and shallow.

The rear row of *Eyes* is procurved. They are equal in size, round, the middle pair a diameter apart and $1\frac{1}{2}$ diameters from the side. The front row is shorter and straight, the middle pair $1\frac{1}{2}$ diameters of rear, and same length away from them, half their diameter apart, a similar distance from the side eyes, which are oval—these are about half their diameter from, and the same size as, the rear side. The front middle only are diurnal, the remainder nocturnal. The *Clypeus* is the breadth of the front middle eyes.

The *Mandibles* are strongly knee-formed at base, conical, as long as the front patellae and hardly as thick as the front femora, slightly divergent, smooth and shiny. On the inner edge of falk sheath are two rather long teeth, and one long between two very short on the outer edge.

The *Maxillae* are upright, sloping on the inner margin and transversely arched on the upper and lower parts with a well-marked depression between. The *Lip* is half the length of the maxillae, as long as broad, truncate in front, the widest part springing from a neck and thence gradually narrowing anteriorly.

The *Sternum* is cordate, straight in front, slightly arched, and sparsely covered with fine upstanding hairs. On the outer margin are slightly marked depressions between the coxae.

The *Abdomen* is broadest near the front end, which is very straight, sides slightly rounded, and narrowing to a point at the rear. It is clothed with fine, close, lying hair of medium length. The spinnerets are of medium length, cylindrical, truncate, with very short hemispherical second joint. The inferior pair are larger in diameter and nearer together than the superior, which are rather the longer. The intermediate pair are close together, fine and short.

The *Legs* are rather thickly covered with fine, upstanding hair, not very stout, spines on the femur tibia and metatarsus of all legs. The two tarsal claws are very fine. On the metatarsus and tarsus of all pairs is a scopula and claw tufts on third and fourth. On femur of third and fourth pairs, above, the spines are 1.1. Tibiae III. and IV. have no spine above.

One female only, from Macedon.

Ceph. - - $2\frac{1}{4}$ mm. long. - $1\frac{3}{4}$ mm. broad.

Abd. - - $2\frac{1}{2}$ " " - $1\frac{3}{4}$ " "

		Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.	
Legs	1	-	$\frac{3}{4}$ mm.	-	2 mm.	-	2 mm.	-	$2\frac{1}{4}$ mm. = 7 mm.
	2	-	$\frac{3}{4}$ "	-	2 "	-	$1\frac{1}{2}$ "	-	$1\frac{3}{4}$ " = 6 "
	3	-	$\frac{3}{4}$ "	-	2 "	-	$1\frac{1}{2}$ "	-	$1\frac{3}{4}$ " = 6 "
	4	-	1 "	-	$2\frac{1}{2}$ "	-	$2\frac{1}{2}$ "	-	3 " = 9 "
<i>or</i> , 4, 1, $\overline{2, 3}$.									

By M. Simon's synopsis of sub families (*loc. cit.*, p. 341) to come into Drassodinae, to which it certainly should belong, the inferior mamillae ought to be widely separated and longer than the superior. In this specimen they are well separated, but shorter than the superior and nearer together. The eyes are like *Leptodrassus*, but the posterior row is distinctly longer than the anterior, and the laminae are strongly impressed. The eye area

does not, however, occupy the whole frontal breadth, nor are the rear eyes equidistant, nor the clypeus broader than the front eyes. I have, therefore, provisionally left it in the old genus of *Drassus*, Walck. It is really a *Drassus*, with the claws of a *Hoemicloea*, and, with more material to work from, might be constituted into a new genus, as it differs materially from both *Drassodes*, Westr., and *Leptodrassus*, Simon.

One male and one female (of the sub-family *Drassodinae*) have the chitinous careniform lamination on the edges of the falx sheath, which M. Simon denotes as the special characteristic of the group *Gnaphoseae*. The strongly impressed maxillae are sufficient to keep it in the family of *Drassidae*, otherwise in many respects it so closely resembles the *Clubionidae* as to be almost a connecting link between the two families. The inferior spinnerets are rather near together and in the shape of the cephalothorax and sternum and long front coxae it has analogies with *Lampona*, Thorell. The genus differs from *Gnaphosa*, Latr., in not having the rear row of eyes strongly recurved and in having the eyes constituting same equidistant.

It differs from *Callilepis*, Westr., in having the cephalothorax less attenuated in front, both rows of eyes straight, and the rear row longer than the front row (as in *Gnaphosa*), in the very narrow clypeus, and in having no long retractile fusules on the inferior mammillae, though it has somewhat similar short fusules in a central bunch.

GNAPHOSOIDES, nov. gen.

Cephalothorax oval, convex, the fore part broad and obtuse, a chitinous careniform lamination on the edges of the falx sheath, a short thoracic sulcus. The eyes of the front row near together, about equal in size, and in a straight line. The rear eyes in a straight or slightly recurved line, longer than the front row, equi-distant, or the middle eyes farther from the side than from one another. The clypeus distinctly narrower than the eyes of the front row. Legs (IV., I., II., III.) stout, but metatarsal and tarsal joints fine, with fine spines.

The inferior mamillae long, near together, with a nearly round truncature. The superior about equal in length but smaller in diameter, and two-jointed.

Type *G. signatus*.

Gnaphosoides signatus, nov. sp. (Pl. XIV., Fig. 2).

The Cephalothorax is reddish brown, the mandibles, lip and maxillae rather darker and redder, with dark brown hair. The sternum, palpi, and legs brighter yellowish brown, but the tarsi, metatarsi, and tibiae of the two front pairs distinctly redder, with pale yellowish grey hair.

The abdomen above is black, with two longitudinal rows of a pale brown scalloped pattern. In the female, the anterior end is almost yellow. The underside is grey, with spinnerets a bright brown.

The *Cephalothorax* is convex, rather long oval, truncate in front, where it is two-thirds the greatest breadth. From the median line it slopes gradually to the margin at sides and rear. The cephalic and thoracic parts are not separated by depressions. The median sulcus is short and shallow between the second and third pairs of legs, the hair is fine down-lying and directed inwards from the sides. Both rows of eyes are straight, the posterior longer than the anterior. In the front row they are close together, the two middle being round and the side oval, their longer diameter the same as the middle. The rear eyes are half the diameter of the front middle (the middle pair rather square, the side round), two of their own diameters apart. The two rows are *the same distance* apart, and the clypeus not more than one-fourth the diameter of the front middle eyes in depth.

The *Mandibles* are knee-formed at base, longer than the front patella, and not so thick as front femur. They project forward somewhat, and are thickly clothed with short down-lying hair and longer upstanding bristles. On the inner edge of the falx sheath is one rather stout tooth not, however, connected with the chitinous margin of the falx, which has a wavy edge, but with no regular teeth.

The *Lip* is rather large, longer than broad, and two-thirds the length of the maxillae, from the base it tapers slightly with straight sides towards the front, where it is truncate, the side edges are depressed, but the middle rather convex. It springs from a prominent fore part of the sternum, the base beginning before the maxillae.

The *Maxillae* are upright, convex, almost square in front, with a deep impression running transversely across the middle.

The *Sternum* is truncate at the anterior margin, thence running rather straight at the sides before widening out into a somewhat long oval.

The *Legs* are stout, the two front coxae longer than the rest. The front femurs are curved on the outer edge. The tarsi and metatarsi distinctly finer in proportion than the other joints.

The *Abdomen* is a long oval, cut straight in front and rounded at rear. The superior and inferior spinnerets are about equal in length and cylindrical, but the former are finer, with a short, conical second joint. The inferior pair stand each on separate bases, which almost touch one another. They are stout, with a sloping, truncated end, and a short bunch of spinning tubes springing therefrom. The front is also furnished with spinning tubes running up the whole joint.

Female		Ceph.	-	4 mm.	long.	-	3 mm.	broad.
		Abd.	-	5 „	„	-	3 „	„
		Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.
Legs	1	-	2 mm.	-	3 mm.	-	$3\frac{1}{2}$ mm.	- 3 mm. = $11\frac{1}{2}$ mm.
	2	-	$1\frac{1}{2}$ „	-	3 „	-	$3\frac{1}{4}$ „	- $2\frac{3}{4}$ „ = $10\frac{1}{2}$ „
	3	-	$1\frac{1}{4}$ „	-	$2\frac{3}{4}$ „	-	$2\frac{3}{4}$ „	- $2\frac{3}{4}$ „ = $9\frac{1}{2}$ „
	4	-	$1\frac{1}{2}$ „	-	$3\frac{1}{2}$ „	-	$3\frac{3}{4}$ „	- 4 „ = $12\frac{3}{4}$ „
or, 4, 1, 2, 3.								

Male		Ceph.	-	$4\frac{1}{2}$ mm.	long.	-	$3\frac{1}{2}$ mm.	broad.
		Abd	-	6 „	„	-	$3\frac{1}{2}$ „	„
		Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.
Legs	1	-	2 mm.	-	$3\frac{1}{2}$ mm.	-	5 mm.	- $3\frac{1}{2}$ mm. = 14 mm.
	2	-	$1\frac{1}{2}$ „	-	3 „	-	4 „	- 3 „ = $11\frac{1}{2}$ „
	3	-	$1\frac{1}{4}$ „	-	$2\frac{3}{4}$ „	-	$2\frac{3}{4}$ „	- $2\frac{3}{4}$ „ = $9\frac{1}{2}$ „
	4	-	$1\frac{1}{2}$ „	-	4 „	-	$4\frac{1}{2}$ „	- $4\frac{1}{2}$ „ = $14\frac{1}{2}$ „

Compare E. Simon, *loc. cit.*, vol. I., p. 428.

Family ZODARIIDAE. Group STORENEAE.

GENERA.

1.—Spinnerets, two only, etc.	-	-	-	-	Lutica.
— Spinnerets, six; clypeus smooth	-	-	-	-	2.

- | | |
|--|---------------------|
| 2.—Clypeus narrower than eye space - - - | 3. |
| — Clypeus wider than eye space - - - | 4. |
| 3.—Area of middle eyes almost square. | |
| Mandibular fang (in the male) | |
| curved outwards - - - - - | <i>Laches.</i> |
| — Area of middle eyes longer than broad. | |
| Mandibular fang in both sexes similar and normal - - - - - | <i>Storenosoma.</i> |
| 4.—Clypeus at least not narrower than eye space. Area of middle eyes longer than broad. Mandibular fang in both sexes similar and normal - - - | <i>Storena.</i> |

STORENOSOMA, nov. gen.

The genus differs from *Laches*, Thor., in having the area of the median eyes trapeziform and having the falx fang normal and similar in both sexes. It differs from *Storena* in depth of clypeus in lip, which is broader than long, truncate, slightly hollowed in front, and maxillae perpendicular, not sloping over lip, which is only half the length of the maxillae.

Type *S. lycosoides*.

Storenosoma lycosoides, nov. sp. (Pl. XIV., Fig. 3).

Cephalothorax, mandibles, palpi, sternum, lip and maxillae bright brownish yellow, a brighter stripe passes down the median line and a dark band round the margin of the thoracic part. It is sparsely clothed with short whitey brown down-lying hairs. The abdomen is a dirty dark grey-brown, with lighter spots on back, the underside is paler, without pattern. Spinnerets pale brown.

The *Cephalothorax* is as long as the patella cum tibia of fourth pair of legs. Rounded at sides of thoracic part and only slightly narrower in front. The middle of the breast part is the highest point of the median line, which curves thence forwards and backwards. A short median sulcus reaches between second and third pairs of legs. The clypeus is only the breadth of the largest pair of eyes, but is increased by a grey membranous

bandeau of about the same again—the two together being about half the total length of the eye-space.

The *Eyes* are in three rows, 2, 4, 2, the middle row being straight along their lower edges, or in two rows very much procurved. The side eyes of the middle row are by far the largest, and lie two diameters apart, with two small eyes, one-third of their diameter and one of their own apart, between them. The front eyes have their diameter two-thirds of the large eyes, are twice that distance from one another, and half their diameter from large eyes of second row. The rear eyes, half diameter of large ones, are two and a half diameters from same and two diameters from one another.

The *Mandibles* are conical, remarkably knee-formed at base, slightly divergent, and longer than patella of front pair of legs. The fangs long and thin and only slightly curved. On inner edge of falx margin are two large teeth placed near the middle. On outer edge two small teeth lie near the lower extremity. It is bordered by a brownish yellow fringe.

The *Maxillae* are upright, curved on the top and along outer edge, narrowing to the base. The *Lip* is broader than long, truncate, and slightly hollowed in front, half the length of the maxillae. It springs from a neck, just above which is its broadest part, thence sloping anteriorly.

The *Sternum* is broadly cordate, terminating in an obtuse point at rear. It is covered with fine, upstanding, brown hairs, and is bordered by a smooth edging, which lies between it and the coxae. The two rear coxae are slightly separated, and from the petiole a wedge-shaped chitinous marking points upwards between them.

The *Palpi* are slight, the femoral joint being much curved inwards.

The *Legs* are stout at base, tapering to the tarsal joints, which are fine and less than half the length of the metatarsal. The tarsal and metatarsal joints armed with long, brown spines. Three claws spring from the hollowed end of the tarsal joint, with small claw tufts. Bristly hairs, hardly amounting to a scopula, line the under side.

The *Abdomen* is ovate, broadest one-third from anterior end. Spinnerets six, the inferior pair with moderately long second joint,

and, springing from a membranous base, are considerably larger than the small superior pair. The epigyne consists of two elliptical shells, placed horizontally, about their short diameter apart.

The eyes show most likeness to those of *Storena annulipes* and *S. pictus*, but the colouration of the body is very different from the *Storena* type. The general appearance is more that of the *Lycosidae*.

I have five specimens, from Macedon.

Ceph. - - $4\frac{1}{2}$ mm. long. - 3 mm. broad.

Abd. - - 6 " " - $4\frac{1}{2}$ " "

	Coxa.	Tr. & Fem.	Pat. & Tib.	Met. & Tars.	
Legs 1	- 1 mm.	- 3 mm.	- $3\frac{1}{2}$ mm.	- 3 mm.	= $10\frac{1}{2}$ mm.
2	- 1 "	- 3 "	- 3 "	- 3 "	= 10 "
3	- 1 "	- 3 "	- $2\frac{1}{2}$ "	- 3 "	= $9\frac{1}{2}$ "
4	- 1 "	- 4 "	- $3\frac{1}{2}$ "	- $4\frac{1}{2}$ "	= 13 "
or, 4, 1, 2, 3.					

Compare L. Koch and v. Keyserling, *Australian Arachnidae*, vol. I., p. 301.

SYNOPSIS OF SPECIES OF HABRONESTES, L.K. (*Storena*, Walck).

I.—Femur of all legs white at the base - -

B.—Second row of eyes recurved - - -

b.—Cephalothorax not so broad as tibia cum cum patella IV. - - - -

a.—Eyes of third row their diameter apart, and much wider apart than middle eyes of second row; abdomen underneath whole coloured -

1.—Rear eyes and side eyes of second row all larger than front row and middle eyes of second - - -

S. picta.

2.—Middle eyes of second row much larger than any of the other eyes - - - -

S. macedonensis.

Storena macedonensis, nov. sp. (Pl. XIV., Fig. 4).

Cephalothorax, mandibles, sternum, part of lip and maxillae, dark brown, front of lip and inner margin of maxillae yellowish. Abdomen above black with white markings, underneath dark brown, sides white; the white markings on back consist of first two longitudinal lines each made up of an oval anteriorly, followed by two small rounds and then two larger round spots; behind these double lines is a single median line reaching to the rear of the abdomen, and made up of one small round spot followed by a triply scalloped long one.

Coxae and adjoining half of femur yellowish white, remainder of femur black. Patella, tibia, metatarsus, and tarsus, yellow. Thin black spines on the legs.

Cephalothorax 2-3rds mm. longer than greatest breadth, slightly shorter than patella cum tibia IV., rounded at sides and in front where it narrows to half the width. Cephalic part higher than thoracic, a longitudinal fovea behind the cephalic part short and deep. The skin is smooth and shiny, the *Eyes* prominent. The second row is recurved, the two centre being twice the long diameters of the side eyes, which are oval. They are all equidistant, the short diameters of the side eyes apart. The front pair are similar to the side eyes of the second row, their short diameter distant from these and the same from the centre eyes. The rear row are round half the diameter of the larger central of second row, from which they are distant two of their own diameters, and one of same apart.

The *Mandibles* are conical, straight, covered with thick furry hair, and as long as front patella.

The *Maxillae* are broadest at the base narrowing to the front, they overhang the *Lip* which is two-thirds their length.

The *Sternum* is a broad heart-shape, arched, without side impresssions, coriaceous, with short fine hair pointing to the rear.

The *Abdomen* is ovate truncate in front widening to rear, arched and high, as long but barely as wide as the cephalothorax.

The *Legs* are long, fine, and smooth, with thin spines.

Ceph.	-	-	3 mm. long.	-	$2\frac{1}{3}$ mm. broad.
Abd.	-	-	3 „ „	-	$2\frac{1}{4}$ „ „

	Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.	
Legs 1 -	$1\frac{1}{4}$ mm.	-	$3\frac{1}{4}$ mm.	-	3 mm.	-	$4\frac{1}{2}$ mm.	= 12 mm.
2 -	$1\frac{1}{4}$ „	-	$3\frac{1}{4}$ „	-	3 „	-	4 „	= $11\frac{1}{2}$ „
3 -	1 „	-	$2\frac{3}{4}$ „	-	$2\frac{3}{4}$ „	-	4 „	= $10\frac{1}{2}$ „
4 -	$1\frac{1}{4}$ „	-	3 „	-	$3\frac{1}{4}$ „	-	5 „	= $12\frac{1}{2}$ „

or, 4, 1, 2, 3.

Araneus memorii, nov. sp. (Pl. XV., Fig. 1).

Cephalothorax, mandibles, maxillae, lip, sternum, palpi, and legs, pale ivory yellow, with light brown spines and pale yellowish white hairs. The abdomen on the upper side is pale yellowish green, with two conspicuous reddish brown spots on the shoulders in a line with the broadest part of the back, two small round dark spots behind these, three pairs of quite small dots behind these again. The hairing is faintly yellow. Underneath the abdomen is pale yellow brown, epigyne and spinnerets the same.

The *Cephalothorax* is as long as patella cum tibia IV., very slightly longer than broad, narrowed in front, rounded at the sides, with faintly marked depressions between the cephalic and thoracic parts. There is no median sulcus, but a rather wide depression in the rear slope where it is overhung by the abdomen.

The four middle *Eyes* are sessile, about equal in size, and form a trapezium broadest in front, the rear pair being one diameter and the front pair one and a half diameters apart, the same between front and rear. Seen from above the front side eyes are in a line with the rear middle, and twice the breadth of the trapezium at rear away. Seen from in front they are on a line with the front middle. The front and rear side eyes are close together, the front being on a slight indication of a tubercle the rear sessile. All eyes are bright yellow.

The *Mandibles* are conical, as long as the front patellae, slightly knee-formed at base, with small weak fangs.

The *Lip* is triangular, broader than long, swelling out from a straight neck, and less than half the length of the *Maxillae*, which are upright straight in front, and as broad as long.

The *Sternum* is heart-shaped, pointed at rear, with deep impressions between the coxae, and raised ridges pointing to the latter. It is smooth and membranous, with a few upstanding hairs round the edge.

The *Abdomen* is broadest about one-fourth of its length from the front margin, which is rounded. It narrows to the rear, which is also rounded, the sides being nearly straight. The underside of the abdomen is folded in deep transverse wrinkles, smaller rows of which pass round from beyond the spinnerets to the sides.

The *Legs* have their coxae rather large, the rear pair being specially broad, and divided longitudinally with a suture. The femoral joints are arched above and flattened at the sides. The patellae are long and flat, the spines short and stout. The tarsi and metatarsi are much finer than the tibial joints, and clothed with long bristly upstanding hair.

Ceph. - - $2\frac{1}{4}$ mm. long. - 2 mm. broad.

Abd. - - 5 „ „ - $4\frac{1}{2}$ „ „

		Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.	
Legs 1	-	1 mm.	-	2 mm.	-	$2\frac{1}{4}$ mm.	-	$3\frac{1}{4}$ mm.	= $8\frac{1}{2}$ mm.
2	-	$\frac{3}{4}$ „	-	2 „	-	$2\frac{1}{4}$ „	-	$2\frac{1}{2}$ „	= $7\frac{1}{2}$ „
3	-	$\frac{3}{4}$ „	-	$1\frac{1}{2}$ „	-	$1\frac{1}{2}$ „	-	$1\frac{1}{2}$ „	= $5\frac{1}{4}$ „
4	-	1 „	-	$2\frac{1}{4}$ „	-	$2\frac{1}{4}$ „	-	$2\frac{1}{4}$ „	= $7\frac{3}{4}$ „

or, 1, 4, 2, 3.

I have named this spider after Mr. John Memory of the Macedon Government Nursery, who has kindly collected for me many therefrom in addition to this.

***Araneus scutigereus*, nov. sp. (Pl. XV., Fig. 2).**

Cephalothorax black-brown on thoracic, reddish brown on cephalic part, the latter covered with rather long, upstanding and short, down-lying, forward-directed, white hairs, a few dark bristles in middle of cephalic part on circular nodules. The mandibles black-brown, paler on the lower inner edge, with grey hairs. Sternum black-brown, with short grey and brown hairs. Lip and maxillae the same, with broad, pale edges. Legs and palpi dark reddish brown, with amber bands on all joints, the femur on underside only near the base, the hairing pale. Spines are white. The abdomen above has a dark brown, four-scalloped pattern, broadest in front and narrowing to rear, edged with grey; a striking, yellowish white, narrow, median stripe, edged with black, divides the back shield into two halves. Underneath

the body is black-brown, with a yellowish area in front of the epigyne; two longitudinal oval spots of yellow lie each side half-way between the epigyne and the spinnerets.

The *Cephalothorax* is shorter than patella cum tibia IV. and half mm. longer than broad. It is rounded at the sides and rather broad in front. The cephalic part is distinctly raised away from the thoracic and alone covered with hair. The four middle eyes and side pairs on moderately high prominences.

The four middle *Eyes* form a trapezium, broadest in front, the rear pair being one and a half diameters from each other and from the front pair, which are in diameter one and a half of the rear. They are their diameter apart. Seen from above both front and rear side eyes, which touch one another, are in a recurved line with the rear middle. The clypeus equals the diameter of the front middle eyes.

The *Mandibles* are conical, knee-formed, longer than patella I., and thicker than femur I.

The *Maxillae* are as long as broad, straight in front. *Lip* less than half their length, broader than long, running to a point in front.

The *Sternum* is heart-shaped, with three prominences down each side. It is thinly covered with hair at the sides, but bare along a median longitudinal stripe.

The *Abdomen*, rounded in front, where it is broadest, is not much longer than broad. It narrows to the rear end, where it is also rounded off.

The *Legs* are moderately fine, the shanks curved outwards on upper side. Bare longitudinal stripes on the tibiae are clearly defined. The spines are stout.

Ceph. - - $8\frac{1}{2}$ mm. long. - $7\frac{1}{2}$ mm. broad.

Abd. - - 10 " " - 6 " "

		Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.	
Legs	1 -	$1\frac{1}{4}$ mm.	-	5 mm.	-	$5\frac{1}{4}$ mm.	-	$5\frac{1}{2}$ mm.	= 17 mm.
	2 -	$1\frac{1}{4}$ "	-	$4\frac{3}{4}$ "	-	5 "	-	5 "	= 16 "
	3 -	1 "	-	$3\frac{1}{2}$ "	-	3 "	-	$3\frac{1}{4}$ "	= $10\frac{3}{4}$ "
	4 -	$1\frac{1}{4}$ "	-	4 "	-	$4\frac{1}{2}$ "	-	$3\frac{3}{4}$ "	= $13\frac{1}{2}$ "

or, 1, 2, 4, 3.

In the collection of the National Museum of Victoria are numerous specimens from various localities in S. Gippsland, whence it would appear that they are fairly abundant in the south-easterly coast district of Victoria. Some vary considerably from the normal type in colouration of the abdomen, the characteristic white stripe being replaced sometimes by a black one, and one specimen has a large oval brown field, without any stripe at all.

Cyrtarachne latifrons, nov. sp. With *var. atuberculata*.
(Pl. XV., Figs. 4 and 5).

Cephalothorax yellowish brown, mandibles the same, but darker towards the lower edge. Fangs dark brown, all lightly covered with pale yellowish hair. Sternum, lip and maxillae dark reddish brown. Femur of first three pairs of legs reddish, the other joints and palpi yellowish to dark brown. Femur of fourth pair dark brown. The abdomen on the upper side is reddish brown, pitted with darker brown depressions.

In the middle of the back is a large oval velvety black transverse field. The underside of the abdomen is dirty reddish brown, with a yellowish white patch between the epigyne and spinnerets. The hairs are a pale yellow.

The *Cephalothorax* is as long as patella cum tibia IV., as broad as long. The cephalic part is raised vertically in two protuberances, one at each side, with a depression between them. The cephalothorax is set nearly at right angles to the middle of the underside of the abdomen. The four middle *Eyes* are on a low prominence, the whole forming a trapezium broader than long, the rear eyes being rather larger and farther apart than the front. The side eyes, a long distance off, are close together, and form a procurved line with both front and rear middle. The *Clypeus* is as broad as the whole central eyes space is wide, and the upper forehead is blotched with tubercles.

The *Mandibles* are thicker at the base than the front femur, tapering to a small point at the lower end, with short, stout, well curved fangs. On the lower falx edge are three rather prominent teeth.

The *Maxillae* are as broad as long, arched, smooth, and rounded in front. The *Lip* is broader than long, slightly rounded in front and narrowed towards the base.

The *Sternum* is shield-shaped, smooth, and slightly raised. It has a deeply cut recurved front margin, and is thinly sprinkled with long upstanding bristles. There are no prominences opposite the coxae.

The *Abdomen* is 1 mm. longer than broad, rounded in front, square at sides, and slightly tapering to an obtuse point at the rear. In the space surrounding the spinnerets are deep transverse wrinkles.

Two large protrudent pinnacles spring almost perpendicularly from near the front margin, and here the abdomen is rather thinner than at the rear.

There are no *small teeth* on the abdomen, and the depressions are very indistinct, six in two rows on the back being most apparent.

On the underside the belly is protuberant between the spinnerets and the epigyne. It is smooth and shiny, and slightly mottled, outside this it is deeply wrinkled. The hairs are short and upright, of a pale colour. The epigyne is of the stylus type, the pendant being four times as long as it is broad at the base.

The *Legs* and *Palpi* are smooth and lightly haired. The two front femurs are thicker than the remainder. The patellar, tibial and metatarsal joints are notably flattened. The metatarsi and tarsi of the front pair of legs have thick rows of bristles on each side.

From the measurements below, this species will be seen to be larger than either *C. bispinosa*, Keys., or *C. speciosa*, L. Koch.

Another female, rather longer in the abdomen, without the pinnacles, and wanting the dark, transverse field on the upper side of the abdomen, otherwise resembles the above in every detail. I have made this a variety under the name of *atuberculata*. They were both found in the same neighbourhood, the Government Nursery, at Lower Macedon, by Mr. J. Memory.

The presence of this pair of large tubercles is one of the differences by which M. Simon distinguishes his genus *Poecilopachys* from *Cyrtarachne*, Thor., but these specimens are otherwise quite similar, and may have been from the same brood.

Measurements as follows :—

Ceph.		-	-	$3\frac{1}{2}$ mm.	long.	-	$3\frac{1}{2}$ mm.	broad.
Abd.		-	-	8	„ „	-	7	„ „
		Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.
Legs	1	-	1 mm.	-	4 mm.	-	4 mm.	$3\frac{1}{2}$ mm. = $12\frac{1}{2}$ mm.
	2	-	1 „	-	4 „	-	$3\frac{3}{4}$ „	$3\frac{1}{4}$ „ = 12 „
	3	-	1 „	-	3 „	-	$2\frac{3}{4}$ „	2 „ = $8\frac{3}{4}$ „
	4	-	$1\frac{1}{4}$ „	-	$3\frac{3}{4}$ „	-	$3\frac{1}{2}$ „	3 „ = $11\frac{1}{2}$ „

var. ATUBERCULATA.

Ceph.		-	-	$3\frac{1}{2}$ mm.	long.	-	$3\frac{1}{2}$ mm.	broad.
Abd.		-	-	9	„ „	-	8	„ „
Legs	-	$12\frac{1}{2}$ mm.	-	12 mm.	-	$8\frac{3}{4}$ mm.	-	$11\frac{1}{2}$ mm.

Dolophones maximus, nov. sp. (Pl. XV., Fig. 5).

Cephalothorax and upper side of abdomen, legs and palpi yellowish brown, with nearly white, fine, down-lying hair. Lip and maxillae orange, with pale edges. Coxae and underside of femora reddish. Sternum the same. Underside of abdomen black and shiny, with two yellowish mottled areas on each side of the breathing slits. The colouring and hair clothing of the upper side turns over to the underside and forms a margin all round.

The *Cephalothorax* is broadest at the rear, narrowing gradually to the front. The head and breast parts are equally low and separated by side impressions; a longitudinal fovea on the latter.

The four median *Eyes* are situated on a prominence, the two front one and a half of their diameters apart, and a similar distance from the rear pair, which are twice the diameter of the front, and two of their diameters apart. The side eyes, half diameter of the front middle, are contiguous on a small tubercle. They are five diameters of the front middle away from and in a straight line with them.

The *Mandibles* are stout, shorter than front patella, and rather thickly covered, on the inner side especially, with coarse, bristly, pale yellow hair.

The *Maxillae* are upright, the upper half broad and square, the lower half narrowing somewhat abruptly. The *Lip* is half

the length of the maxillae, straight and broad in front, whence it widens to one-third of its length down, and from there gradually narrows again to the breadth of the front margin at the base.

The *Sternum* is a broad, shield-shape, straight in front, rounded at the sides and ending posteriorly in a double point. In front of each coxa is a rather prominent hump, and a median longitudinal ridge runs from the middle to the front edge. It is lightly clothed with fine, upstanding hairs.

The *Abdomen*, which overhangs the cephalothorax, and is twice as broad as long, is flat on the under side and slightly convex on the upper. The contour of the front edge is wavy, and the greatest transverse breadth just below the same, from which point, with wavy side lines, it curves to an obtuse point at rear.

The *Epigyne* has a short stylus, very wide at the base. It narrows rapidly to a fine point in broad transverse rugations.

The back ocellations are very faint, but are just indicated. The *Legs* are stout and long, with orange coloured stiff bristly hair standing out at the sides. Two dark longitudinal lines run down the upper side of each femur. The tibia and patella are somewhat flattened.

The *Palpi* are rather short, the tarsal joint being the longest; they are covered with stiff bristly hair.

Ceph. - - 4 mm. long. - $5\frac{1}{2}$ mm. broad.

Abd. - - 8 „ „ - 16 „ „

	Coxa.	Tr. & Fem.	Pat. & Tib.	Met. & Tars.	
Legs 1	- $1\frac{1}{2}$ mm.	- $5\frac{1}{2}$ mm.	- 5 mm.	- $4\frac{1}{2}$ mm.	= $16\frac{1}{2}$ mm.
2	- $1\frac{1}{2}$ „	- 5 „	- 5 „	- $4\frac{1}{2}$ „	= 16 „
3	- $1\frac{1}{2}$ „	- $4\frac{1}{2}$ „	- 4 „	- $3\frac{1}{2}$ „	= $13\frac{1}{2}$ „
4	- 2 „	- 7 „	- 5 „	- 6 „	= 20 „
or, 4, 1, 2, 3.					

It will be seen that this species is of a large size, and of a type totally different from any southern forms of the genus heretofore collected. I thought it just possible that coming from the State Nursery it might have been introduced. However, on looking through the National Museum collection, I find a smaller specimen of the same from Marysville, North Gippsland, Victoria, and several others from localities not stated.

Argoctenus pectinatus, nov. sp. (Pl. XVI., Fig. 1).

The cephalothorax is yellow-brown, with short curly greyish yellow hairs, the eyes bright topaz. The mandibles, dark brownish grey, paler on the lower part of inner edge, with upstanding black bristles, fangs brownish pink. The lip and maxillae, ashy grey, with pale ivory yellow edgings. The sternum is dark grey, with thin greyish yellow hair. The abdomen is yellowish grey, with short stout black upstanding hairs, and down-lying pale yellow, curved as on cephalothorax. The sides and underpart are greyer than above. Spinnerets, dark grey. The upper joint of superior pair yellowish. The legs and palpi are coloured like the cephalothorax, the femoral joints of the two rear pairs of legs being somewhat darker and greyer, as is the underside of all the femora, and the coxae, agreeing with the colour of the sternum.

The *Cephalothorax* is shorter than the patella cum tibia of the 4th pair of legs, and $\frac{1}{4}$ mm. longer than the breadth between the 2nd and 3rd pairs.

The cephalic part is well raised up, and runs about straight to the middle of the cephalothorax, where begins a very deep, well marked fovea with rounded edges. The side-slopes are rather pronounced, and end in a clearly marked depression, the beginning of the somewhat broad flat margin of the thoracic part. Three or four long bristles stand out from the forehead just below the eyespace. The front of the face is perpendicular from the rear middle eyes, the rear side eyes standing on the side edges of the cephalic median ridge. The clypeus is the breadth of the front pair of eyes.

The *Eyes* of the front row are somewhat smaller than those of the third, both pairs being about two-thirds of their respective diameters apart.

The second row (or side eyes of first row) are very minute, and are equidistant from the front and rear eyes of the middle square, twice the same distance from the side rear, or fourth row, which are the largest of any of the eyes, $1\frac{1}{2}$ diameters of front pair.

The *Mandibles* are long, decidedly longer than the front patellae, rather strongly arched, smooth and shiny, a long sloping falx edge makes them diverge from about the middle. They are thinly clothed with short rough hairs and long upstanding bristles. The fangs are short, weak and well curved.

The *Maxillae* are upright, convex on both inner and outer sides. The upper margin rounded and entirely covered with hair fringe, on the inside slope the fringe grows from the upper, or inner, side. The *Lip* is broadest at the base, distinctly broader than long, arched in front with a broad sloping margin. It is less than half the length of the maxillae.

The *Sternum* is a broad heart-shape, terminating in a narrow point between the rear coxae. It is smooth and shiny, with a few scattered hairs round the edges.

The *Abdomen* is rather long ovate, straight in front, and curved at sides, broadest one-third of length from rear end, where it is rather pointed. The spinnerets are short, the front pair being thickest, and the second joint of the superior pair distinctly long and conical.

The *Legs* are smooth underneath, but thickly covered on the upper side with short down-lying hair. The spines are very long and strong. On the underside of the front tibiae are five pairs of spines (four long, and then one short). The spines on this and the metatarsal joint are unusually long and stout, and stand up in a remarkable manner in the way M. Eugene Simon describes (*Loc. cit.* vol. II., p. 125) as the special characteristic of his *Zoreae* as opposed to his *Miturgeae*, to which group *Argoctenus* is referred, but which should here have weak sessile spines. The tarsi and metatarsi of all the legs are fine and without scopula, but a claw tuft terminates all tarsi, the two claws being fine and weak, straight along the shaft, then curved at the end. None of the femoral joints have spines on the upper side.

I have a male of the species from Frankston, Port Phillip Bay. They live under fallen leaves.

Ceph. - - 2 mm. long. - $1\frac{3}{4}$ mm. broad.
Abd. - - 3 „ „ - $1\frac{1}{2}$ „ „

	Coxa.	Tr. & Fem.	Pat. & Tib.	Met. & Tars.
Legs 1	- 1 mm.	- $2\frac{1}{4}$ mm.	- $2\frac{1}{4}$ mm.	- 2 mm. = $7\frac{1}{2}$ mm.
2	- 1 „	- 2 „	- 2 „	- 2 „ = 7 „
3	- 1 „	- 2 „	- 2 „	- $1\frac{1}{2}$ „ = $6\frac{1}{2}$ „
4	- 1 „	- $2\frac{3}{4}$ „	- 3 „	- 3 „ = $9\frac{3}{4}$ „

or, 4, 1, 2, 3.

Syspira rubicunda, sp. nov. (Pl. XVI., Fig. 2).

The cephalothorax is ruddy brown, rather paler in the middle, with two black-brown, broadish stripes running from the eye-space to the rear slope, where it is again reddish brown to the margin. The paler parts are covered with orange hair, with five black-brown spots round the sides of the thoracic part, and two narrow, dark stripes on the sides of the cephalic. The mandibles are black-brown, with red fangs and thick brown hair on falx. Lip, maxillae, sternum, and coxae, black-brown, with dark brown and grey hair.

The abdomen above is dark brown, with orange hair irregularly mottled with large spots of black hair. The underside is black, with black hair and four longitudinal white stripes running from the epigyne to the spinnerets, which are dark yellowish brown.

The legs and palpi are brown on the femoral joint, the lower parts pale orange.

The *Cephalothorax* is convex, oval, narrowing in front to half the width between second and third pairs of legs. It is longer than patella cum tibia of fourth pair. A rather deep median sulcus reaches from the rear slope to the pars cephalica. A thick fillet of hair surrounds the edge of the thoracic part.

The front row of eyes is straight, the middle pair being twice the diameter of the side eyes, half their diameter apart, and one-third diameter from the side. The clypeus is half the diameter of the front middle eyes in width. The rear row of eyes is straight, or slightly recurved, broader than the front row. The eyes two-thirds the diameter of front middle pair. The two middle are their diameters apart, same distance from front middle, and one and a half diameters from the rear side.

The *Mandibles* are knee-formed at base, longer than front patellae, and as thick as front femur. They are thickly covered with down-lying brown hair on the upper two-thirds; a few up-standing black hairs near the point. The fangs are stout and long; two teeth on the inner falx edge.

The *Maxillae* are upright, arched with thick fringe on the inner margin, longest at the top end. The *Lip* is truncate anteriorly arched, and springs from a short neck. It is as broad as long, and less than half the length of the maxillae.

The *Sternum* is heart-shaped, rather straight in front, and pointed at the rear end; arched in centre, and thinly clothed with upstanding bristly hair.

The *Abdomen* is oval, rounded in front and at sides. It is thickly covered with short coarse hair, dark brown to black, except the white hair forming the stripes on the underside. The inferior pair of spinnerets are cylindrical truncate at top, contiguous at base. The superior pair have a short second joint distinctly conical. They are rather longer, but smaller in diameter than the inferior.

The *Palpi* are as long as the cephalothorax, thickly covered with hair. The femoral joint is short and incurved.

The *Legs* are stout and hairy; a scopula on all tarsi and metatarsi; stout spines on femora, tibiae and metatarsi.

Ceph. - - 5 mm. broad. - 4 mm. long.

Abd. - - 7 „ „ - $4\frac{1}{2}$ „ „

Coxa. Tr. & Fem. Tib. & Pat. Met. & Tars.

Legs 1	-	$1\frac{3}{4}$ mm.	-	4 mm.	-	4 mm.	-	$3\frac{1}{2}$ mm.	=	$13\frac{1}{4}$ mm.
2	-	$1\frac{3}{4}$ „	-	$3\frac{1}{2}$ „	-	$3\frac{1}{2}$ „	-	$3\frac{1}{2}$ „	=	$12\frac{1}{4}$ „
3	-	$1\frac{1}{2}$ „	-	$3\frac{1}{2}$ „	-	$3\frac{1}{2}$ „	-	$3\frac{1}{2}$ „	=	12 „
4	-	$1\frac{3}{4}$ „	-	$4\frac{1}{2}$ „	-	$4\frac{1}{2}$ „	-	$4\frac{1}{2}$ „	=	$15\frac{1}{4}$ „

Miturga maculata, nov. sp. (Pl. XVI., Fig. 3).

Cephalothorax reddish brown, darker in front than in the middle; median furrow dark, with five dark stripes leading therefrom towards the margin on each side. The hairs are pale yellowish brown, darker brown on the dark patches; a thickly haired pale stripe round the margin of the thoracic part. It reaches farther up the sides on the cephalic part, also between the middle and side eyes. The mandibles are black-brown, with long, pale, bristly hair, on the upper part, thinner and darker on the lower. Fangs deep red, with pale red fringe on outer falx edge. Lip and maxillae dark reddish brown, with black bristles on the outer edges of the latter and pale reddish brown fringes on inner. Sternum pale brown, with down-lying yellow and upstanding dark brown hairs. Legs and palpi bright golden brown, with greyish yellow hair, tending to brown on the coxae. Abdomen above pale yellow-brown, mottled irregularly with

black, but leaving a pale yellow streak from anterior margin to about the middle, followed by two rows of paler spots to posterior end, underneath black, with four longitudinal lines of white hairs in patches, sides irregularly blotched with white on dark brown ground.

The *Cephalothorax* is longer than patella cum tibia IV., well rounded at sides, two mm. longer than broad, tapering to the front, where it is truncate. The rear part is slightly convex, with a well-marked, deep, median sulcus.

The front row of *Eyes* is straight. The two middle rather larger than the side and barely the diameter of the side eyes apart. The rear row is recurved, the rear middle eyes larger than the front and the rear side. The area of the four median is broadest at rear and as long as broad. The rear middle farther from the side than from one another. Side eyes, three of their diameters apart, set obliquely on a joint tubercle.

The *Clypeus* is rather wider than the front middle eyes.

The *Mandibles* are conical, knee-formed at base, slightly divergent, and as long as the front patellae. The basal half has long, bristly, down-pointing hair. On the inner margin of the falk sheath are two teeth wide apart, at intervals dividing the slope into three.

The *Lip* is as broad as long, straight in front, rounded at base, and less than half the length of the *Maxillae*, which are upright, rounded at front and sides, widest in middle, and with thick, bristly hair on the outer margin.

The *Sternum* is broad oval, with depressions between the coxae; is thickly covered with down-lying hair and thin upstanding bristles.

The *Abdomen* is ovate, straight in front and pointed at rear, about one and a half times as long as broad; thickly covered with coarse down-lying hair. The second joint of the superior spinnerets is only half as long as the first. The epigyne of the female is nearly circular, with raised edging; a central depression, and, further, a pair of circular depressions in the central space.

The male *Palpi* has its organs well differentiated, and a long flagellum winding half-way round the lower side of the bulb. A square projection, with claw at one angle, stands out from the side of the tibial joint.

The *Legs* are fairly stout, with scopulae on all tarsi, and metatarsi, thin only on the latter, in the two rear pairs.

Female - Ceph. - 7 mm. long. - 5 mm. broad.
Abd. - 10 „ „ - $6\frac{1}{2}$ „ „

Coxa. Tr. & Fem. Pat. & Tib. Met. & Tars.

Legs	1	-	2 mm.	-	5 mm.	-	6 mm.	-	5 mm.	=	18 mm.
	2	-	2 „	-	5 „	-	$5\frac{1}{2}$ „	-	$4\frac{1}{2}$ „	=	17 „
	3	-	$1\frac{3}{4}$ „	-	$4\frac{1}{2}$ „	-	5 „	-	$4\frac{1}{2}$ „	=	$15\frac{3}{4}$ „
	4	-	2 „	-	$5\frac{1}{2}$ „	-	6 „	-	$6\frac{1}{2}$ „	=	20 „

Male - Ceph. - 6 mm. long. - 5 mm. broad.
Abd. - 7 „ „ - $4\frac{1}{2}$ „ „

Coxa. Tr. & Fem. Pat. & Tib. Met. & Tars

Legs	1	-	2 mm.	-	5 mm.	-	$6\frac{1}{2}$ mm.	-	$5\frac{1}{2}$ mm.	=	19 mm.
	2	-	2 „	-	5 „	-	6 „	-	5 „	=	18 „
	3	-	$1\frac{3}{4}$ „	-	5 „	-	$5\frac{1}{2}$ „	-	5 „	=	$17\frac{1}{4}$ „
	4	-	2 „	-	6 „	-	7 „	-	7 „	=	22 „

In Report of the Horn Expedition¹ I described a *Liocranum*, L. Koch, under the name of *L. albopunctatum*. M. E. Simon has a genus *Medmassa* (*Hist. Nat. des Ar.*, Vol. II., p. 198) which takes in a portion of *Liocranum*, and will, I think, well include *L. albopunctatum*. The only point in the specification which would incline me to make a new genus for these, is that he makes his side eyes narrowly separated, while here they are rather widely separated (by at least two diameters of the rear eyes). With this exception it may justly be put into *Medmassa* with three other species, one probably L. Koch's *L. pallipes*, described by him from an undeveloped specimen and the others I describe below.

In his sub-family of *Corinninae* (fam. *Clubionidae*, *loc. cit.* p. 23), M. Simon distinguishes them as having “sternum distinctissime marginatum.”

The group *Corinneae*, in which the genus *Medmassa* occurs (*loc. cit.* p. 128), has “chelarum margo inferior dentibus 3-4 armatus.”

¹ Report on the Work of the Horn Scientific Expedition to Central Australia, pt. ii., Zoology, p. 323.

The synopsis of genera gives to *Medmassa* "sternum tenuiter vel vix distincte marginatum," and the specification of the genus gives "margine inferiore sulci quadridentato rarissime bidentato vel quinqueidentato. Sternum haud marginatum."

***Medmassa bicolor*, nov. sp. (Pl. XVI., Fig. 4).**

Cephalothorax black-brown, with fine granulations on the surface, and white closely-lying feathered hairs in patches round the margin and along the median line.

The mandibles are black-brown at base, apex and fangs not so dark a brown ; upstanding long brown hairs.

Lip and maxillae, brown, with reddish orange edges. Sternum, black-brown, with fine down-lying white hair. Abdomen, black-brown, with irregular patches of white feathery hair on both upper and lower surface. Spinnerets and epigyne rather lighter.

The coxae of all legs, and whole of the two rear pairs of legs are black-brown, as is also the upper half of the femur of the two front pairs ; the remainder of these two pairs, bright orange-yellow. White feathery hair interspersed with upstanding brown bristles on the darker portions, and brown hair on the yellow parts.

The *Cephalothorax* is moderately convex, rather long ovate, square in front, and rounded at the sides, faint shallow depressions separating the thoracic from the cephalic part, with two more at each side. A short median furrow at head of rear slope.

The *Mandibles* are conical, strongly kneed at base, longer than patella, and as thick as femur of front legs. Only two teeth visible on inner edge of falc sheath.

The rear row of *Eyes* is strongly procurved. They are equal in size ; the two middle three-quarters of a diameter apart, and one diameter from the side. The front edges of the front row are in a straight line ; the middle the same size as the rear, three-quarters diameter apart ; the side eyes, oval and smaller, almost touch the middle ; the end of their long diameter, which slopes upwards and outwards, is the diameter of the larger eyes distant from the rear side. The median quadrilateral is clearly longer than broad.

The *Maxillae* are upright, convex, the upper margin slightly, and the outer more strongly curved, they are broadest across the

middle. The *Lip* is broader than long, less than half the length of the maxillae; truncate in front, narrowing from about the middle of the sides to both front and rear. Both lip and maxillae have broad upper and inner margins sloping to the edge.

The *Sternum* is cordate, convex, with a short point at the rear, not quite reaching between the rear coxae, which are one-fourth of their width apart. It rises rather abruptly from a quite flat margin, and thence curves slightly to the median line.

The *Abdomen* is ovate, straight in front, rather pointed at the rear end, rounded at the sides.

The spinnerets are two-jointed, short and stout, the inferior and superior pairs of equal length, the lower joints cylindrical, the upper quite short and hemispherical. They almost touch one another at the base, and a hard fold of membrane encloses the whole group.

The *Legs* are long, and fine at the extremities, the femoral joints being flat at the sides, and curved outwards on the upper and lower edges; a double row of long upstanding spines on the under-side of the tibial and metatarsal joints of all legs; claw tufts on all tarsi, but no scopula.

Female - Ceph. - $3\frac{1}{2}$ mm. long. - $2\frac{1}{2}$ mm. broad.
 Abd. - 5 " " - 3 " "

		Coxa.	Tr. & Fem.	Pat. & Tib.	Met. & Tars.	
Legs	1	- $1\frac{1}{2}$ mm.	- $3\frac{1}{2}$ mm.	- $3\frac{3}{4}$ mm.	- 4 mm.	= $12\frac{3}{4}$ mm.
	2	- $1\frac{1}{2}$ "	- 3 "	- $3\frac{1}{2}$ "	- $3\frac{3}{4}$ "	= $11\frac{3}{4}$ "
	3	- $1\frac{1}{2}$ "	- 3 "	- $3\frac{1}{4}$ "	- $3\frac{3}{4}$ "	= $11\frac{1}{2}$ "
	4	- $1\frac{3}{4}$ "	- $3\frac{1}{2}$ "	- $4\frac{1}{2}$ "	- $5\frac{1}{2}$ "	= $15\frac{1}{4}$ "

or, 4, 1, 2, 3.

Medmassa fusca, nov. sp. (Pl. XVII., Fig. 1.).

Cephalothorax, brownish yellow, the colour darkening towards the margin, and about the eyespace where it is dark brown. White plumose hair in patches along the median line. Mandibles, yellowish brown, with a few fine upstanding brown hairs; fangs reddish brown. Lip and sternum, dark brown; maxillae, lighter, with broad pale dingy yellow edging. Abdomen, black-brown above, lighter brown below, with very fine down-lying simple hairs pointing rearwards on the back, and patches of white plumose

hairs; the most pronounced forming greyish spots on each side, about half way down. The femur of all legs is a dingy yellow-grey, the front pairs being paler and the rear pairs darkest. The other joints are lighter in colour, and have white hairs.

The *Cephalothorax* is oblong, truncate in front, slightly rounded at the sides. The cephalic and thoracic parts separated by a broad shallow depression. The median sulcus runs from the front part of the pars thoracica to the rear slope. A raised marginal fold surrounds the whole cephalothorax, and the eyespace is also slightly raised.

The rear row of *Eyes* are equal and nearly equidistant, procurved about one and a half diameters apart, but the middle pair slightly farther from each other than from the side. The front row viewed from above is straight, the diameters being the same size, but the side eyes oval. The two middle eyes are on a distinct prominence, two diameters apart, and are touching the side eyes, consequently viewed from in front the row is procurved. The eyes of the side pairs are a diameter apart. The clypeus equals in breadth the diameter of the front middle eyes.

The *Mandibles* are conical, kneed at base, longer than the front patellae, and as thick as front femora.

The *Maxillae* are upright, parallel, slightly curved in front, convex, and slightly curved on outer edge, broadest across the middle.

The *Lip* is wider than long, rounded in front, and less than half the length of the maxillae.

The *Sternum* is broad, heart-shaped, convex, rising rather suddenly from a flat margin.

The *Abdomen* is a long oval, rounded at the sides, and rather pointed both at front and rear.

The *Legs* are fine, the femur not so much thickened as in *M.* bicolor, from which it may be easily distinguished by the front row of eyes, which are equal in breadth, the middle being farther from one another than from the side.

Ceph.	-	-	$2\frac{3}{4}$ mm.	long.	-	$1\frac{3}{4}$ mm.	broad.
Abd.	-	-	4	„ „	-	$2\frac{1}{2}$	„ „

		Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.	
Legs	1	- $\frac{3}{4}$ mm.	-	$2\frac{1}{4}$ mm.	-	2 mm.	-	$2\frac{1}{4}$ mm.	= $7\frac{1}{4}$ mm.
	2	- $\frac{3}{4}$ "	-	2 "	-	$1\frac{3}{4}$ "	-	2 "	= $6\frac{1}{2}$ "
	3	- $\frac{3}{4}$ "	-	2 "	-	$1\frac{3}{4}$ "	-	2 "	= $6\frac{1}{2}$ "
	4	- 1 "	-	3 "	-	$2\frac{3}{4}$ "	-	$3\frac{1}{2}$ "	= $10\frac{1}{4}$ "

In *M. flavipes*, L. K., the legs are wholly yellowish brown, and in *M. albopunctata*, H. R. Hogg, black all over, with white patches of plumose hair. In *M. bicolor* the front middle eyes are much larger than the side, and the black cephalothorax and abdomen, with yellow two front pairs of legs, are distinctive features. *M. semiflava*, E. Sim., has a yellowish brown cephalothorax, with front, middle, and side eyes apparently about the same as *M. bicolor*, from which the black cephalothorax easily distinguishes it.

M. Eugene Simon (*loc. cit.* vol. ii., p. 320) divides his family of Lycosidae into, among other groups, Lycoseae and Pardoseae, the members of the former being distinguished by having the lip longer than broad, and metatarsus IV. shorter than patella cum tibia IV.

In Pardoseae the lip is shorter than broad and metatarsus IV. as long as or longer than patella cum tibia IV.

In the species described below the lip is distinctly less in length than in breadth, the characteristic of *Pardosa*, but metatarsus IV. is also distinctly shorter than patella cum tibia IV., thus possessing characteristics specially distinctive of each of the two groups.

The lip makes it a *Pardosa*, C. Koch, and it certainly does not conform to *Lycosa*, Latreille, in respect of that organ. The third tooth of the lower falx edge is *not* "much smaller than the first and second," as they are all nearly equal, the middle being rather the largest, but not materially so. For the present, therefore, I am obliged to make my three new species, all of which are alike in the above details, into a new genus, which I call *Venator*.

VENATOR, gen. nov.

The genus *Venator* will differ from *Pardosa* in having metatarsus IV. shorter than patella cum tibia IV. and three large teeth on the lower falx sheath margin nearly the same size, as in *Lycosa*.

Type *V. spenceri*.

Venator spenceri, nov. sp. (Pl. XVII., Fig. 2).

Cephalothorax brownish yellow at sides, with paler median stripe of yellowish grey reaching from the second row of eyes to the upper part of the rear slope; a similar band of colour round the side edge, deeply scalloped above into the side slope of dark grey and brown hair; a black transverse band along the division between the cephalic and thoracic parts slopes forward to rear of the front corner.

The mandibles, black-brown, have a thick mass of yellow-brown hair on the upper half, mingled with black upstanding hairs, which continue to the falc margin. The fangs dark reddish brown, paler at the points. Lip and maxillae dark brown, paler at the edges, with black upstanding hairs and dark grey fringe.

Sternum black-brown, with black, upstanding hair. The front two coxae on each side black-brown, the two rear pair pale chestnut-brown, with pale yellow hair.

The abdomen above brownish yellow, mottled with black patches and yellow and white hairs. A triangular black marking at forward end has the lower corners continued into wings. This is succeeded by a second, similar, but smaller, followed by a third smaller still. Behind this again are three circles of black, lying transversely across the rear end. The epigyne is brown, and the spinnerets greyish yellow.

The sides are more closely mottled with black spots on a grey ground, in places converging into transverse lines. Underneath is a yellow ground, with a transverse black field, reaching from the epigyne to half-way to the spinnerets, straight in front and curved towards the rear. The legs and palpi are a bright brownish yellow on femoral joint, deepening into greyish yellow on the other joints, with black and grey hairs. A dark grey band passes across the upper side of femur at anterior end, and underneath the end of tibia is a similar streak. The spines are pale brown; scopulae of yellowish brown on tarsi and metatarsi of first and second pairs, and on tarsi of third and fourth.

The *Cephalothorax* is longer than patella cum tibia IV., and $1\frac{1}{2}$ mm. longer than greatest breadth, where it is as broad as metatarsus IV. is long. It is highest at the rear row of eyes,

whence it slopes gradually to the rear slope, which is steeper and covered by the abdomen.

The front row of *Eyes* has the centres in a straight line, and is narrower than the second row. The middle eyes are twice the diameter of the side eyes, and all separated by a distance equal to half diameter of side eyes. The front middle eyes are their diameter from the eyes of the second row, and the same distance from the margin of the clypeus.

The eyes of the second row are twice the diameter of the front middle, and they are half that distance apart. They are their diameter from those of the third row, which are slightly smaller, and twice their own diameters apart.

The *Mandibles* are longer than the front patellae, and as long as the front tibiae. They are arched at the basal half, where they are thickly covered with down-lying hairs. They have bare basal spots, and on the lower half, and the inner edge of the upper, are sprinkled with upstanding bristly hairs. They narrow to the front margin, where they are cut off rather straight. The fangs are strong and well curved; on the inner margin of falx sheath are three large teeth, of which the middle is slightly the largest; on the outer edge half way down are two teeth, the upper much the largest.

The *Maxillae* are arched, broadest at the upper end, curved on the outer edge, and are slightly incurved over the lip. Both lip and maxillae have a fair sprinkling of upstanding bristles. The *Lip* is one-third broader than long, broadest about half way between base and anterior margin, which is straight with a broad sloping edge, and slight indentation in middle. It narrows to the base, and is barely half the length of the maxillae.

The *Sternum* is a broad oval, well raised up at the outer edge, but moderately flat. It is thinly sprinkled with long upstanding bristly hair.

The *Abdomen* is ovate, broadest towards the rear, rather straight in front, rounded and high at the sides, rounded at rear, covered with coarse thick down-lying hair, and a few upstanding bristles.

The *Legs* are clothed with short down-lying coarse hairs and thin upstanding bristles, the femoral joints not so thickly covered as the remainder. The metatarsi and tarsi of the anterior two pairs have a scopula. On the upper side of all the femora are

three spines, two long and one short in front. On tibiae III. and IV. are two spines 1.1. above. The metatarsal joint of the fourth pair is distinctly shorter than patella cum tibia.

Ceph. - - 6 mm. long. - $4\frac{1}{2}$ mm. broad.
 Abd. - - $7\frac{1}{2}$ „ „ - $5\frac{1}{2}$ „ „

	Coxa.	Tr. & Fem.	Pat. & Tib.	Met. & Tars.	
Legs 1	- 2 mm.	- 6 mm.	- 5 mm.	- $5\frac{1}{2}$ mm.	= $18\frac{1}{2}$ mm.
2	- 2 „	- 5 „	- $4\frac{1}{2}$ „	- $5\frac{1}{4}$ „	= $16\frac{3}{4}$ „
3	- 2 „	- $4\frac{1}{2}$ „	- 4 „	- 5 „	= $15\frac{1}{2}$ „
4	- 2 „	- 6 „	- 5 „	($4\frac{1}{2}$, $2\frac{1}{2}$) = 7 „	= 20 „

or, 4, 1, 2, 3.

Venator fuscus, nov. sp. (Pl. XVII., Fig 3).

Female.—Cephalothorax black-brown on the sides and front, dark reddish brown along the median stripe; a band of rather thick, down-lying, pale yellow hair round the margin, on the median stripe, round the eyes and on clypeus; thinly-spread white and black hairs and black bristles on remainder.

The mandibles are black-brown, with yellow-brown hair on the upper half; thin, black, upstanding bristles all over; and a thick bush of black and grey hair covering the outer falx edge. The fangs are a rich shiny black, paling to reddish brown near the point. Maxillae, lip and sternum are black-brown, with long, upstanding black hair and bristles; fringe on edge of maxillae grey-brown. The upper surface of abdomen, sides and underneath black, with short, thick, dark grey hair and black bristles. On underneath two longitudinal stripes of thick yellowish white hair, reaching from the pulmonary fold two-thirds of the distance to the spinnerets.

The legs and palpi are reddish brown on coxae, darkening towards the extremities, with dark grey down-lying hairs, black bristles, and black-brown spines.

The *Male* is paler, but rather brighter coloured. The longitudinal median stripe on the back is yellow haired, and there is a similar coloured band round the sides of the abdomen.

The *Cephalothorax* is one-third longer than its width between second and third pairs of legs, and clearly longer than patella

cum tibia IV. It is highest in the middle of the cephalic part, sloping gradually thence to rear of thoracic part.

The *Mandibles* are long and powerful, somewhat drawn to the rear. In the female they are nearly twice as long as the patellar and equal to the tibial joint of the front pair of legs; about one and a half of patella in male. The lower end of the falx is only slightly narrower than the upper, which is kneed. They are covered with a thick bush of hair so long as to quite conceal the edge. The fang is long and stout, and rather straight. On the inner margin of the falx sheath are three large teeth, of which the middle is slightly larger than the other two.

The front row of *Eyes* is broader than the middle row. The front middle eyes are one and a half times as broad as the side, two-thirds of their diameter apart, and barely their diameter from the middle row. The latter are two-thirds of their diameter apart. The rear eyes, three-quarters the diameter of the second row eyes, are one and a half of their diameter away from same, and three times their diameter apart. The clypeus equals in breadth the diameter of the front middle eyes.

The *Maxillae* are arched, broadest in front, where they are slightly rounded; a thick fringe of long hair on the inner half of the front edge, and of shorter hair on the inner slope.

The *Lip* is barely half the length of the maxillae, arched transversely, with a broad front edge hollowed out; it is distinctly broader than long.

The *Sternum* is a broad oval, well raised up from its bed, from which it is nearly as high at the edges as in the middle. It is thickly clothed with upstanding, bristly hair.

The *Abdomen* is long ovate, broadest one-fourth from the rear end, rather high at the sides.

The *Palpi* are slightly shorter than the cephalothorax, the femoral joint thickened in front and curving inwards. The tibial joint is longer than the patellar, all rather thickly haired.

The *Legs* are stout, with a thick scopula on tarsus and metatarsus of all legs. On all the legs the femur has two long and one shorter spine on upper side. Metatarsus IV. is shorter than patella cum tibia IV.

Female	-	Ceph.	-	10 mm. long.	-	7½ mm. broad.
		Abd.	-	9 „ „	-	6 „ „

		Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.	
Legs	1	-	3 mm.	-	7 mm.	-	$7\frac{1}{2}$ mm.	-	7 mm. = $24\frac{1}{2}$ mm.
	2	-	3 „	-	$6\frac{1}{2}$ „	-	7 „	-	$6\frac{1}{2}$ „ = 23 „
	3	-	3 „	-	6 „	-	6 „	-	6 „ = 21 „
	4	-	3 „	-	8 „	-	8 „	$\left. \begin{matrix} 6\frac{1}{2} \\ 3 \end{matrix} \right\} 9\frac{1}{2}$ „	= $28\frac{1}{2}$ „

Male - Ceph. - 8 mm. long. - 6 mm. broad.

Abd. - 7 „ „ - $4\frac{1}{2}$ „ „

		Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.	
Legs	1	-	$2\frac{1}{2}$ mm.	-	6 mm.	-	7 mm.	-	$8\frac{1}{2}$ mm. = 24 mm.
	2	-	$2\frac{1}{2}$ „	-	$5\frac{1}{2}$ „	-	6 „	-	$7\frac{1}{2}$ „ = $21\frac{1}{2}$ „
	3	-	$2\frac{1}{2}$ „	-	5 „	-	5 „	-	$6\frac{1}{2}$ „ = 19 „
	4	-	$2\frac{1}{2}$ „	-	7 „	-	7 „	-	9 „ = $25\frac{1}{2}$ „

Venator marginatus, nov. sp. (Pl. XVII., Fig. 4).

Cephalothorax black-brown, with a narrow white or yellow edging along the margin the whole way round; parallel to this a narrow brown intermediate line, and then a broad band of yellow or white hairs. The cephalic part above this is yellow-brown, merging into the median stripe of the same colour which runs to the rear slope; between the median and side stripes on the thoracic part there is a wide space of dark grey and black; on the face are black bristles. The mandibles are black-brown, thickly covered for two-thirds down with coarse yellow hairs and bristles, the lower third dark brown with black hairs. Fangs black-brown.

The lip and maxillae are a dirty dark red-brown, with paler edgings scantily covered with upstanding pale brown hair. The sternum is pale yellow-brown, with still paler coarse upstanding yellow hair. The legs and palpi are pale yellow-brown, darkening to orange at the joints, with pale yellow-brown hair, and darker upstanding bristles; the spines, dark brown; on the outer side of each femur is a darker brown longitudinal stripe. The abdomen above is of a dark grey ground colour, with two curved longitudinal pale yellow-brown stripes meeting in front and at rear just above the spinnerets.

The intermediate space is divided transversely into a series of nine triangular markings, of which the rather paler apex of each

fits into the hindward curved darker base of the one in front of it. The sides are yellow, mottled with dark grey, and the under side a thick mat of down-lying coarse pale yellow hair. Spinnerets and epigyne, bright brown.

The *Cephalothorax* is longer than patella cum tibia IV., $2\frac{1}{2}$ mm. longer than the width between second and third pairs of legs; rounded at the sides. The face is trapezoidal seen from the front, widening out between the palpi, and rather high in the middle. The middle ridge runs about level to rear slope, where it descends at a steep angle. The hairing is close and smooth, with upstanding bristles between the eyes and on the forehead.

The front row of *Eyes* are barely as wide as the second, the two middle of the front row being twice the diameter of the front side, a semi diameter of the same apart. The *Clypeus* is scarcely the width of the front middle eyes, and the latter are half their diameter from those of the second row.

The second row eyes are half their diameter apart, and twice the diameter of the front middle eyes. The eyes of the rear row are the diameter of the second row eyes away from them. They are one and a half diameters of front middle eyes, and two and a half of their own diameters apart.

The mandibles are longer than the front patellae, kneed at base, and then slightly recedent, thickly covered to end of falx with down-lying hair. The fangs are long and stout. There are three large teeth on the inner edge of falx sheath, the middle slightly the largest.

The *Maxillae* are transversely arched, narrowed at base, rounded in front and at the outer side; on the inner slope thickly fringed, and the whole surface covered with thin upstanding hairs. They are slightly sloping over the *Lip*, which is distinctly wider than long, transversely arched, hollowed in front, and narrowed at rear. It is about half the length of the maxillae.

The *Sternum* is heart-shaped, pointed at rear, where the coxae are close together. It rises somewhat abruptly at the margin, and is thence slightly arched to the centre. The irregular upstanding coarse hair is longer at the margin than near the centre.

The *Abdomen* is ovate, rounded in front and rear, broadest one-third from the rear, thickly covered with close lying hair

much coarser on the under side. The superior *Spinnerets* are rather longer than the inferior, with very short second joints.

The *Palpi* are shorter than the cephalothorax, the femoral joint curved inwards, and broadening to anterior end. The tibial joint is longer than the patellar.

The *Legs* are thickly covered with short down-lying hair and upstanding bristles; all tarsi are scopulated, and the rear metatarsi thinly so. The rear metatarsus is shorter than patella cum tibia of same.

		Ceph.	-	-	8 mm. long.	-	5½ mm. broad.		
		Abd.	-	-	7 „ „	-	5 „ „		
		Coxa.		Tr. & Fem.		Pat. & Tib.		Met. & Tars.	
Legs	1	-	2½ mm.	-	6 mm.	-	7 mm.	-	6 mm. = 21½ mm.
	2	-	2½ „	-	6 „	-	6 „	-	6 „ = 20½ „
	3	-	2½ „	-	6 „	-	6 „	-	6 „ = 20½ „
	4	-	3 „	-	8 „	-	7 „	$\left. \begin{smallmatrix} 6 \\ 3 \end{smallmatrix} \right\} 9$	„ = 27 „
<i>or</i> , 4, 1, 2, 3.									

EXPLANATION OF PLATES XIII. TO XVII.

PLATE XIII.

Fig. 1.—*Amaurobius pilosus*. Male. 1*a*, eyes. 1*b*, palp. 1*c*, posterior end of sternum.

Fig. 2.—*Hylobius divergens*. Female. 2*a*, eyes. 2*b*, epigyne. 2*c*, cribellum of female. 2*d*, rear coxae and end of sternum.

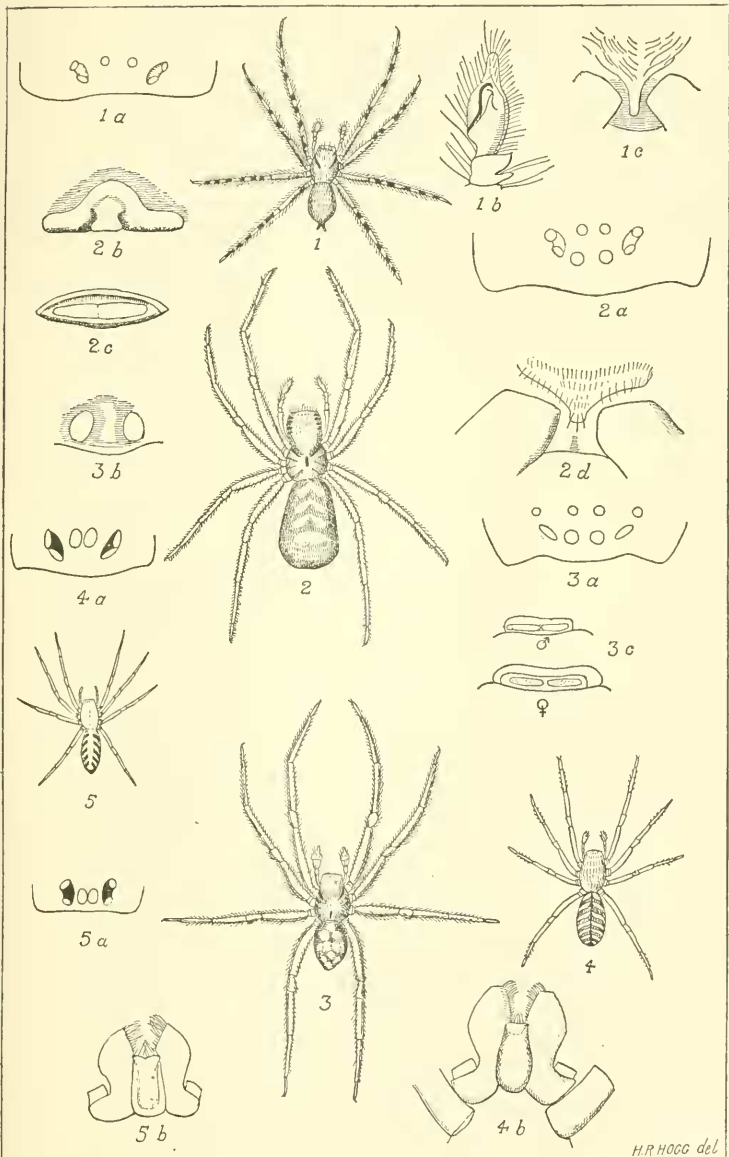
Fig. 3.—*Hylobius punctatus*. Female. 3*a*, eyes. 3*b*, epigyne. 3*c* cribellum of male and female.

Fig. 4.—*Macedonia burchelli*. Female. 4*a*, eyes. 4*b*, lip, maxillae and part of sternum.

Fig. 5.—*Gippsicola raleighi*. Female. 5*a*, eyes. 5*b*, lip and maxillae.

PLATE XIV.

Fig 1.—*Drassus debilis*. Female. 1*a*, eyes. 1*b*, epigyne. 1*c*, lip and maxillae. 1*d*, spinnerets from above.



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